This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

THE SPINNER.

A Charcoal Study from Life. Warren Avenue School. Reprinted from a block used as a part of the exhibit of the Evening Drawing Schools at the Louisiana Purchase Exposition.

Boston, Mass. School committee. (1905.)

SCHOOL DOCUMENT NO. 3—1905.

SPECIAL REPORT

OF THE

COMMITTEE ON DRAWING

ON THE

EVENING DRAWING SCHOOLS

BOSTON
MUNICIPAL PRINTING OFFICE
1905

SEP 27 1905

T25.5
.B61

HARVARD UNIVERSITY
GRADUATE SCHOOL OF EDUCATION
MONROE C. GUTMAN LIBRARY

"Since the early days a wonderful change has been wrought, naturally wrought, in the business probabilities of New England by the extension of the population of the great West and Southwest. There was a time when New England was the manufacturing centre of the United States, and New England people manufactured as they pleased and sold at their own prices. They were independent. They had practically no competition in the United States.

"But during the last generation the centre of population has moved westward; great cities, great commonwealths have grown up with their necessities, which have been met by the construction and operation of manufacturing plants identical with those which formerly controlled the situation from New England.

"What is to be the future of New England?

"We produce nothing except clay for bricks, cement, timber, and brainy men."

President Lucius Tuttle at the 316th Meeting of the Commercial Club of Boston.

And this brings us to the consideration of the class of men we must employ if we wish to be first. Boston does not keep her young men of ability. She lets them go to run great enterprises in other parts of the country. We must have young and energetic men who are up to date, and who are in sympathy with great movements. We must keep them at any price and promote them young. There is nothing one notices more in Boston than the tendency to repress men of strong ideas and the refusal to tolerate change. . . We are too prone to criticise, instead of to sympathize. We are not keeping in touch with the great American movement. If our country is going in any direction, it is not for Massachusetts to stand aside and to think that she can teach the rest of the country. If we are not capable of appreciating our inheritance, and view ourselves with complacency, we shall be left behind and shall not lead in any movement.

Notes from a lecture on "The Purpose for Which a City May Reasonably Encourage Art," by Mr. Brooks Adams.

I should be thankful if every day-laborer among us could have his mind illuminated as those of Athens and Florence had, with some image of what is best in architecture, painting, and sculpture, to train his crude perceptions and perhaps call out latent faculties. . . For I hope some day that the delicacy of touch and accuracy of eye that has made our mechanics in some departments the best in the world, may give us the same supremacy in works of wider range and more purely ideal scope.

James Russell Lowell.

SPECIAL REPORT

OF THE

COMMITTEE ON DRAWING ON THE EVENING DRAWING SCHOOLS.

IN SCHOOL COMMITTEE, BOSTON, May 9, 1905.

The first move toward enlarging the scope of the work of the Evening Drawing Schools was taken by the Committee on Drawing in offering the order in the meeting of the School Committee on Feb. 28, 1899, "that the Superintendent be requested to consider and report, at an early date, upon the advisability of revising the course of study for Evening Drawing Schools." Few changes had been made up to this time in the character of the work, since the foundation of these schools. In the meeting of October 10, 1899, the Superintendent reported "that a revised course of study for evening drawing schools is now submitted to the School Board for such action as may be deemed best."

The next step forward by this Committee was taken in November, 1900, by offering the order, "that the Committee on Drawing are hereby authorized to hold one or more conferences with the representatives of organized labor for the purpose of formulating such plans with regard to the conduct of the Free Evening Industrial Drawing Schools as will make them of more value to the industrial interests of the city." Among other things which resulted from these discussions was the decision upon the part of this Committee to broaden the course by devoting more attention to the subject of applied design. Up to this time design had been taught

as a part of the regular free-hand course, and it consequently failed to receive the attention which was its due. The Committee therefore offered an order in the meeting of the School Committee on Nov. 13, 1900, that authority be granted to "announce a special class for the study of design as related to industry, to meet in the rooms of the Warren-avenue Evening Drawing School or in the Art Reference Room of the Public Library, on the evenings of Tuesday, Thursday and Saturday." Thus was established the School of Design.

In October, 1901, after investigating carefully the difficulties experienced by industrial workers in obtaining access to the grade of work they desired, the Committee offered certain amendments to the rules of these schools, and announced that "students will be admitted to such classes as their qualifications will permit."

In September, 1902, this Committee presented a report upon the work of these schools, and illustrated the courses with certain well chosen examples of students' work. This report also contained a second revised course of study, which has been so great a success during these last few years. A way had now been opened for the industrial student to secure the training he desired, and means provided by which such students could readily find their level of attainment in such classes as they might desire to attend. Better quarters for these schools now engaged the attention of this Committee.

During these changes in the course of study there had been considerable friction from one source or another arising from the quarters in which these schools were located. Petitions had been received from citizens regarding the unsatisfactory conditions in certain of these schools, and it was well known that other schools were most uneconomically housed in rented quarters. In order to secure light upon this subject before recommending any action, the Committee requested and received the following report from the Director of Drawing upon the problems of industrial art education as applied to these schools.

REPORT

OF

JAMES FREDERICK HOPKINS, DIRECTOR OF DRAWING.

To the Committee on Drawing,

Dr. JAMES A. McDONALD, *Chairman:*

GENTLEMEN, — In accordance with the request of your Committee made January, 1904, for data upon the work of the Evening Drawing Schools — their needs, and possibilities of extension in the light of successful accomplishment in other cities — I submit the following illustrative and descriptive data. In order to properly present the details of a somewhat extended and varied inquiry, the matter is arranged under the following heads:

I. THE EVENING DRAWING SCHOOLS.

(*a*) Establishment and Purpose; (*b*) Location of Schools; Class-room Arrangements; Teaching Staff; and Enrollment of Pupils.

II. COURSE OF STUDY.

(*a*) Reorganization of the Evening Drawing Schools; Course of Study; (*b*) Increased Attendance Due to Enlarged Opportunities.

III. STUDENTS OF THE EVENING DRAWING SCHOOLS.

(*a*) Occupations Represented; (*b*) Why Students Come to These Schools; (*c*) Life Successes of the Graduates.

IV. EXTENSION OF INDUSTRIAL TRAINING.

(*a*) Initial Steps Toward Extension of These Schools; (*b*) Enlargement of Courses Will Have Broad Public Support; The Time Ripe for the Movement.

V. HOW BOSTON HAS ESTABLISHED SCHOOLS TO TRAIN FOR SPECIAL WALKS OF LIFE.

(*a*) Foundation of the Public Latin School; (*b*) Establishment of the English High School; (*c*) The Building of the Mechanic Arts High School; (*d*) Boston's Opportunity to Offer Training for Applied Arts.

VI. A STUDY OF DAY SCHOOL CONDITIONS.

(*a*) What Becomes of Our Grammar and High School Graduates; (*b*) Loss of Pupils as a Class Passes Through all Grades; (*c*) Where Those Taking Work Certificates Seek Employment.

VII. WHAT GREAT BRITAIN HAS DONE FOR INDUSTRIAL ART EDUCATION.

(*a*) Establishment of Industrial Art Schools; (*b*) Wide Influence of the "South Kensington" Organization; (*c*) What Manchester, England, Does for Industrial Education; (*d*) Interesting Comparisons With Boston's Expenditures.

VIII. DOES APPLIED ART TRAINING PAY?

(*a*) Experiments in Day and Evening Class-rooms; (*b*) Shall We Make Cheap Pottery or Art Products of the Kiln? (*c*) Contrasts in the Increment of Value in Wrought Iron; (*d*) The Southern Weaver, The Skilled New England Weaver, The Weaver of the Art Product; (*e*) The Hope of New England Lies in Training her Skilled Laborers for Artistic Artisanship.

IX. RECAPITULATIONS AND CONCLUSIONS.

I. THE EVENING DRAWING SCHOOLS.

(*a*) ESTABLISHMENT AND PURPOSE.

The Evening Drawing Schools are one of the results of the following Act of the Legislature of 1870:

Be it enacted, etc., as follows:

SECTION 1. The first section of chapter 38 of the General Statutes is hereby amended so as to include drawing among the branches of learning which are, by said section, required to be taught in the public schools.

SECT. 2. Any city or town may, and every city and town having more than 10,000 inhabitants shall, annually make provision for giving instruction in industrial or mechanical drawing to persons over fifteen years of age, either in day or evening schools, under the direction of the school committee.

SECT. 3. This act shall take effect upon its passage.

[*Approved, May 16, 1870.*

"Under this act it will be necessary for us to adopt some plan of instruction not included in the regular course of our schools," reported the Committee on Drawing, July 12, 1870. "We would recommend therefore that the requirements of the statute be met by establishing three evening drawing schools in convenient parts of the city, where drawing only is taught, and where the large number of young men whose employment prevents their attendance at the day schools may obtain what they so much need, and are so anxious to receive."

From the Annual Report of the Standing Committee on Drawing (1870–71) we learn that registration for these schools commenced November 28, 1870; that over one thou-

sand pupils applied for instruction, and that the first of these schools opened in certain rooms of the Institute of Technology on December 6, 1870. Thus began the interesting story of the good work of these schools, partial notes upon which are later recorded in these pages.

In the Annual Report of 1872–73, the Committee on Drawing called especial attention to the good work accomplished, "as it warrants the reasonable hope that Massachusetts will eventually take a high stand among her sister States through the application of Art to Industry. Those who believe that it is only through such means that she can, in the future, retain her hitherto undisputed position as a leading manufacturing State, will rejoice at these . . . proofs of native aptitude for original design." Thus, at the period of the foundation of these schools, the purpose of the foundation was clearly defined. It makes one wish as we read those reports, noting the use of rooms in the infant Institute of Technology, reading the suggestions of what might be done in connection with a new Art Museum, that some far-sighted educator might have then made provision for a worthy permanent home for these schools; for the only restrictions upon their growth during these three decades have been those of hampering quarters and lack of permanency in a definite home.

EAST BOSTON EVENING DRAWING SCHOOL. (Old High School-house.)

(*b*) LOCATION OF SCHOOLS; CLASS-ROOM ARRANGEMENTS; TEACHING STAFF; AND ENROLLMENT OF PUPILS.

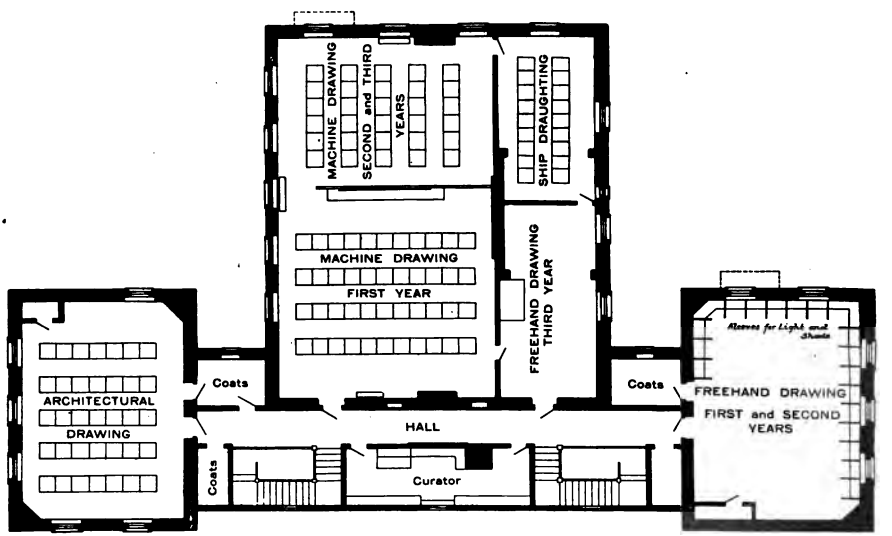
The Evening Drawing Schools maintained by the City of Boston are six in number. These schools are free, all materials are furnished, and the instruction is planned to fit the needs of those who desire to study drawing and design as an aid in their daily occupation. Their locations, class-room arrangements, teaching staff, and enrollment of pupils are as follows:

The *East Boston Evening Drawing School is located on the top floor of the Old High School-house, corner of Meridian and Paris streets, East Boston. The school occupies

*Credit for the photographs of the five buildings in which the Evening Drawing Schools are located is due to Mr. George Jepson, Master of the Columbus-avenue Evening Drawing School, who took these photographs for this Report during the Convention of the National Educational Association in 1903.

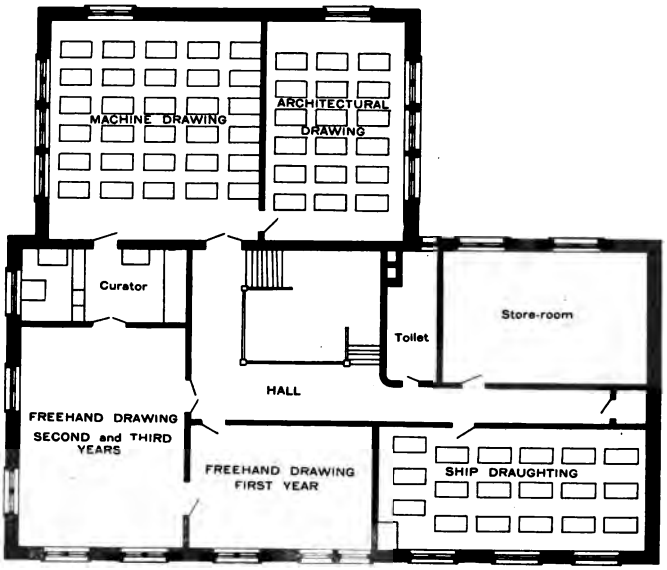
at present four rooms upon this floor; a fifth room, which is badly needed, being temporarily assigned to the use of day pupils in the Lyman School District. With the erection of the new building for these day pupils this room will doubtless be returned to the evening school. The school employs a principal, five assistant teachers, and a curator. This building is centrally located, upon car lines from all portions of the East Boston District, is over the East Boston Branch of the Public Library, is in a city building, therefore free from rent, and when rearranged once more in accordance with the * plan here reproduced will make a very desirable home for this important school.

One hundred and thirty-five (135) pupils were enrolled in this school during the term of 1903–04.



PLAN OF THE EAST BOSTON EVENING DRAWING SCHOOL.

*Acknowledgments are due to Mr. Albert L. Ware, Principal of the Charlestown Evening Drawing School, for the preparation of the plans of the six Evening Drawing Schools.



PLAN OF THE CHARLESTOWN EVENING DRAWING SCHOOL.

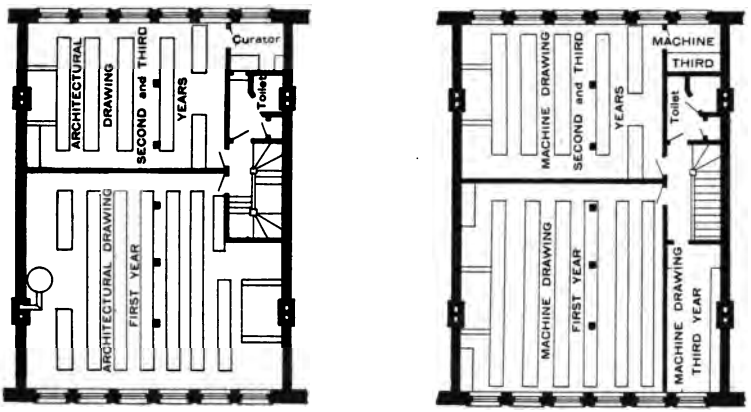
CHARLESTOWN EVENING DRAWING SCHOOL. (Old City Hall Building.)

The Charlestown Evening Drawing School is located in the old City Hall, City square, Charlestown. It occupies five rooms upon the third floor, and a sixth room is available should this school need further extension. The school employs a principal, five assistant teachers, and a curator. This building, like that of the East Boston School, is centrally located, is opposite a station of the "Elevated," is over the Charlestown Branch of the Public Library, is in a city building and therefore free from rent, and with slight rearrangements of the plan here reproduced, and the installation of electric lighting and certain locker and storage arrangements, would make a most satisfactory home for a rapidly growing school.

Two hundred and fourteen (214) pupils were enrolled in this school during the term of 1903–04.

COLUMBUS AVENUE EVENING DRAWING SCHOOL.

The Columbus-avenue School is located in rented quarters at 147 Columbus avenue, occupying four rooms on the third and fourth floors of a building * which should never have been taken for school purposes. The school employs a master, five assistant teachers, and a curator.



Third Floor. Fourth Floor.

PLAN OF THE COLUMBUS AVENUE EVENING DRAWING SCHOOL.

Concerning this building, I can only call the attention of your committee to the statement of a former report:

"The quarters occupied by the Columbus-avenue School are absolutely unsatisfactory. Here is a school composed largely of machinists, carpenters, and masons; a school that annually has a waiting list of at least fifty more students than can be accommodated; a school with unrivalled attendance and interest, with courses of study of the highest technical grade reached in our evening work. Yet this school is quartered in gas-lighted rooms — the glare from the jets being most detrimental to eyesight, and the attendant heat so great that little other warmth is needed on the coldest nights in winter — rooms which become almost unbearable in the early spring. I have seen a student drop from his seat to the floor in a faint from the conditions which prevail

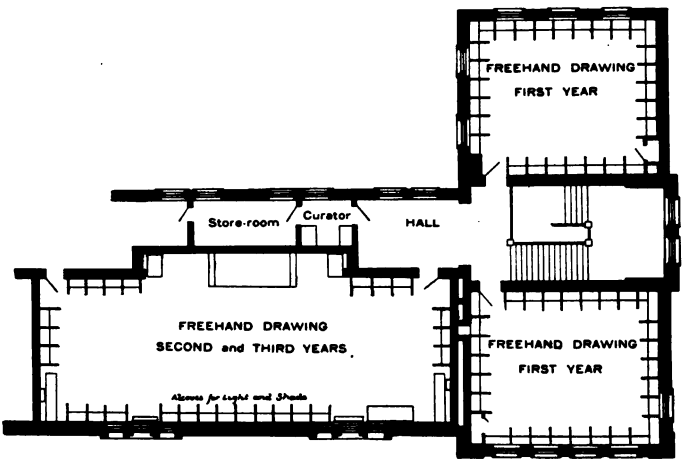
* In the Minutes of the School Committee for March 13, 1900, will be found a petition from artisan members of this school justly criticising these quarters.

in this school. I have seen students' work representing much patient toil ruined by the drippings from a leaking roof. I have been ashamed to meet visiting teachers in this school, and have to apologize for location, ventilation, sanitary arrangements, and lighting."

To these statements might be added the facts that the stairs are narrow and are finished with "winders"; that the outer door opens inward; that the means of escape in case of fire are wholly inadequate and probably could not be reached in case of disaster; and that it is a common report in the school that gasolene in quantity is stored in the basement immediately under the stairs.

Two hundred and eighty-two (282) pupils were enrolled in this school during the term of 1903–04.

WARREN AVENUE EVENING DRAWING SCHOOL. (Public Latin School-house.)
SCHOOL OF DESIGN.



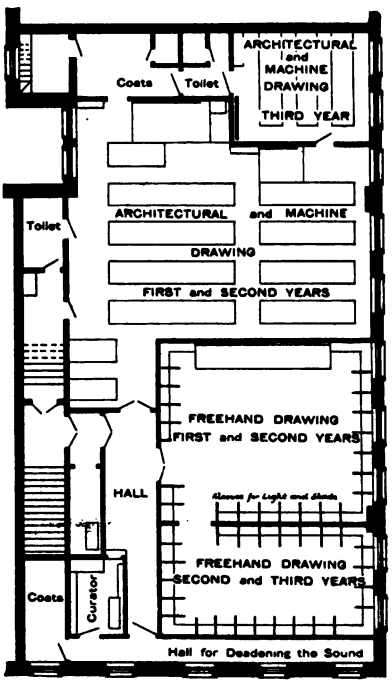
PLAN OF THE WARREN AVENUE EVENING DRAWING SCHOOL.

The Warren Avenue Evening Drawing School is located on the top floor of the Public Latin School-house, on Warren avenue, near Dartmouth street. Three rooms upon this floor are occupied, and the classes in clay modeling are located in a room in the basement. The school employs a master, four assistant teachers, and a curator. The Warren-avenue School is housed in a city building, and is, therefore, free from the burden of rental, but it is a question how long it can use these rooms undisturbed. This school is worthy of better quarters, and could well become a part of a central school containing the present Columbus-avenue School, the School of Design, and the Roxbury School.

Two hundred and thirty-nine (239) pupils were enrolled during the term of 1903–04.

The School of Design occupies the rooms of the Warren Avenue Evening Drawing School on alternate nights and meets in the Art Reference Room of the Public Library on Friday evenings. A principal, one assistant teacher, and a curator are employed. What has been said about the

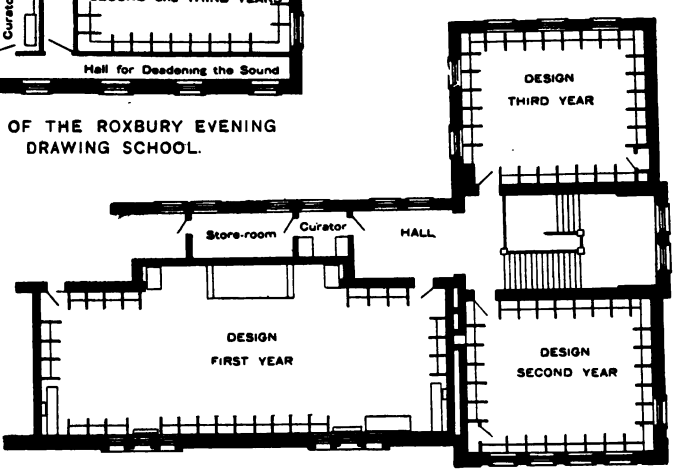
wisdom of considering other quarters for the Warren-avenue School applies equally well to this organization.



PLAN OF THE ROXBURY EVENING DRAWING SCHOOL.

One hundred and twenty-one (121) pupils were enrolled in this school during the term of 1903–04.

The Roxbury Evening Drawing School is located in rented quarters, at 2307 Washington street, Roxbury, occupying four rooms on the second floor, opposite the "Elevated," with its attendant noise and disturbance. The school employs a principal, six assistant teachers, and a curator. This is a most important



PLAN OF THE SCHOOL OF DESIGN.

school, in a district rapidly becoming the central area of the city. Its quarters, like those of the Columbus-avenue

School, are rented, and the amounts thus paid annually represent losses to the city without any future gain. A union of the Columbus-avenue and Warren-avenue Schools, the School of Design, and this Roxbury School is possible educationally. It would certainly be good policy from the standpoint of the financial investments of the city.

The Roxbury Evening Drawing School enrolled two hundred and eighty-two (282) pupils during the term of 1903–04.

ROXBURY EVENING DRAWING SCHOOL.

CHARCOAL STUDY FROM THE CAST.

Drawn by a pupil in the East Boston School. Reprinted from the Report of the Committee on Drawing. School Document No. 11, 1902.

II. COURSE OF STUDY.

(*a.*) REORGANIZATION OF THE EVENING DRAWING SCHOOL; COURSE OF STUDY.

There had been comparatively few changes in the course of study pursued by these Evening Drawing Schools during the years previous to 1899. There were a certain number of specified subjects to be studied, and the student's progress in any subject was marked by the production of specified "certificate sheets." Each student was expected to commence at the beginning of a course and work steadily forward through routine exercises, which it must be admitted had grown in some instances a little out of harmony with the best current industrial art practice. Students came steadily to these courses, but in many instances the attendance fell rapidly as the term progressed, owing to the inability of students to become interested in phases of work which did not immediately touch their daily bread-winning occupations. Your Committee met this state of affairs very squarely in 1899 by requesting the Superintendent to report a revision of the course of study. This new outline of work practically abolished the idea of ranking a man upon the number of sheets accomplished, allowed a student to enter at once upon the desired grade of work for which he might be fitted, and in many ways placed the work upon a more satisfactory basis.

Three years later (1902) your Committee called for an entire reorganization of the work as well as a second revision of the course of study. The field of study covered by the Evening Drawing Schools was divided into six subjects. Freehand drawing was separated from design, the costume model was introduced into four schools, and the methods of

instruction were planned so as to be in thorough sympathy with the daily occupations of the students. Design, relieved from its entangling alliance with the freehand courses, began to develop in a way which was most promising. The work in clay-modeling broadened out to include modeling from the costume model and studies in metal and design, as well as along the old line studies of ornament. Mechanical, architectural drawing and ship draughting perhaps saw less modifications than the freehand courses, but greater freedom was introduced in these subjects and wider latitude given the teachers in their choice of problems.

A new course was introduced at this time by offering instruction in structural drawing. The extended use of steel construction in architectural and engineering projects requires a knowledge of this subject upon the part of the artisan and the draughtsman, and this new work, while as yet not extensively taken up, has been of much service.

A few details upon these modifications and the general conduct of these Evening Drawing Schools may not be amiss.

The term of the Evening Drawing Schools begins on the second Monday in October and continues for sixty-six working nights. These schools are open for the examination, registration, and classification of applicants for admission on the Monday, Wednesday, and Friday evenings immediately preceding the opening of the term, when an exhibition of the students' work is also on view. The sessions in all schools begin at half-past seven o'clock and close at half-past nine o'clock. Sessions in the Warren-avenue, Columbus-avenue, Charlestown, East Boston, and Roxbury Schools are held on Monday, Wednesday, and Friday evenings. Sessions of the School of Design are held on Tuesday, Thursday, and Friday evenings. The Friday evening sessions of the School of Design are held at the Boston Public Library.

No person is admitted under the age of fifteen years, or at any time other than the beginning of the term, except by

express permission of the principal of the school. Students are admitted to any First Year Class without examination. Students who can prove their ability to undertake advanced work are admitted to the Second or Third Year Classes. Ability to undertake work of advanced standing is determined by examination. All students are required to follow the course of study for the year and division to which they belong.

The School Committee reserves the right to select and retain as city property certain drawings from every student's work each year of the three years' course of instruction. These drawings are used for purposes of record and exhibition, and to display from time to time in the different classrooms as examples of students' work. Examples of students' work in modeling are also selected each year to be photographed or cast.

Certain evenings during each year of the course are devoted to examinations, which count a regular number of points toward the certificates or diplomas. Each first-year student who attains the required number of points in his class is entitled to a first-year certificate. Each student who attains the number of points representing the full two years' work, or its equivalent, is entitled to a second-year certificate. Each student who attains the number of points representing the full three years' work, or its equivalent, is granted the diploma of the Evening Drawing Schools.

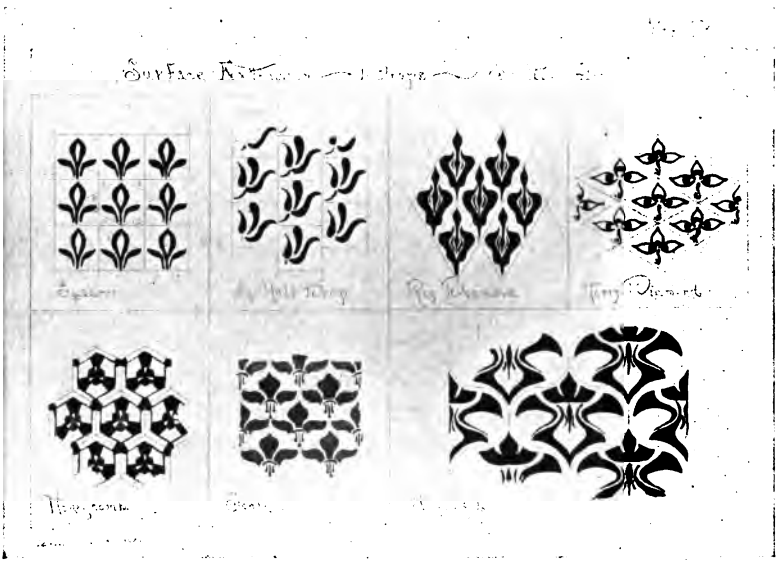
FREEHAND DRAWING.

The courses in freehand drawing are carried on in the Warren-avenue, Charlestown, East Boston, and Roxbury Schools.

The course in freehand drawing covers three years' work, and aims to offer opportunities for thorough training and the development of power in quick sketching and illustration. It is a course which is of much value to the general student, of particular service to the photo-engraver, of assist-

ance to the advertiser, and has in recent years been in considerable request by those engaged in millinery and costume design.

The entering student is first taught the principles of free-hand perspective; the recognition and rendering of values; and is given practice in examples of simple composition. This is followed by the drawing of ornament, still life, or the



ELEMENTARY EXERCISE IN DESIGN.

Reprinted from a block used as a part of the exhibit of the Evening Drawing Schools at the Louisiana Purchase Exposition.

antique in light and shade in various mediums. Drawing from the costume model is then introduced, and opportunities are offered for the study of action poses in quick sketches; right methods of drawing the figure; and practice in the principles of elemetary pictorial composition.

During the second year the pupil continues the study of composition and values, as illustrated in the studies of still life, and also works from the antique in light and shade. The larger part of this year, however, is spent in practice in

drawing from the costume model; and in preparing studies for costume and illustration, in various mediums.

Upon entering the third year the pupil undertakes a certain amount of more advanced composition and studies of values in still life. This is immediately followed by portrait study from the model in light and shade or color; extensive practice in drawing from the costume model; and the making of costume studies for illustration. Problems in different

STUDY IN DESIGN FOR INTERIOR DECORATION.
Reprinted from the Report of the Committee on Drawing. School Document No. 11, 1902.

mediums, charcoal, monochrome, colored chalks, and pen and ink for the different processes of reproduction are also undertaken.

DESIGN AND COMPOSITION.

The courses in Design and Composition are carried on in the School of Design, which occupies the rooms of the Warren-avenue School on Tuesday and Thursday evenings, and which meets in the Public Library for lectures and research on Friday evenings.

A STUDY IN CLAY MODELING.

By a pupil in the Warren-avenue School.
Reprinted from the Report of the Committee on Drawing. School Document No. 11, 1902.

The course offers special training in the study of the principles of design and composition and technical methods in applied design. The three years' work is arranged to develop appreciation of the principles that govern good design and originality in their application to wall-paper, textiles, leaded glass, ceramics, furniture, ironwork, interior decoration, etc.

A feature of this course of design and composition is the opportunity which it offers to teachers to study the application of art instruction to manual training. Original designs applicable to whittling and bench work, for wood and leather carving, basketry and weaving are sought and studied. Modeling of simple ornamental and useful objects in wood or leather is undertaken, as well as the study of designs in metal.

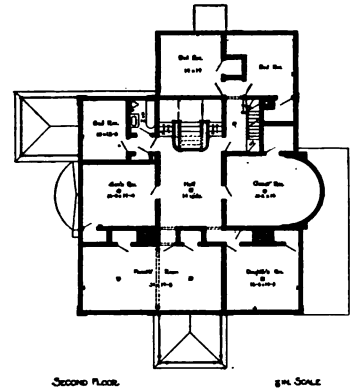
MODELING.

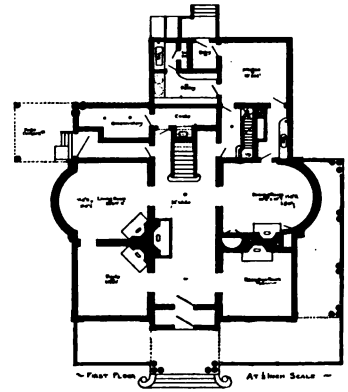
The important part which modeling plays in the applied arts has led to especial provision at the Warren-avenue School for the conduct of classes in this subject.

The course of study covers a period of three years, and like the other courses in these schools is so arranged that beginners as well as advanced workers may find interesting fields for helpful training.

Three related divisions are offered. The first is planned for sculptors and stonecutters who desire to take up modeling to aid their profession, or to bring a greater feeling of plasticity into their work. A second division supplements the work of the freehand drawing classes, and offers opportunities to teachers and advanced students to study modeling. The third division is arranged to meet the needs of students of applied design.

All pupils model from the costume model, casts, plants, flat copies, or original designs; and study the principles of decoration as applied to stone, wood, and metal. Students studying in the third division are instructed in the designing and modeling of small objects, like candlesticks, drinking





PLANS AND ELEVATIONS OF A COLONIAL HOUSE.

Drawn from given data by a pupil of the Roxbury School. Reprinted from a block used as a part of the exhibit of the Evening Drawing Schools at the Louisiana Purchase Exposition.

fountains, vases, clock-cases, ink-stands, tablets, and the like, which are of a character to be cast in metal.

ARCHITECTURAL DRAWING.

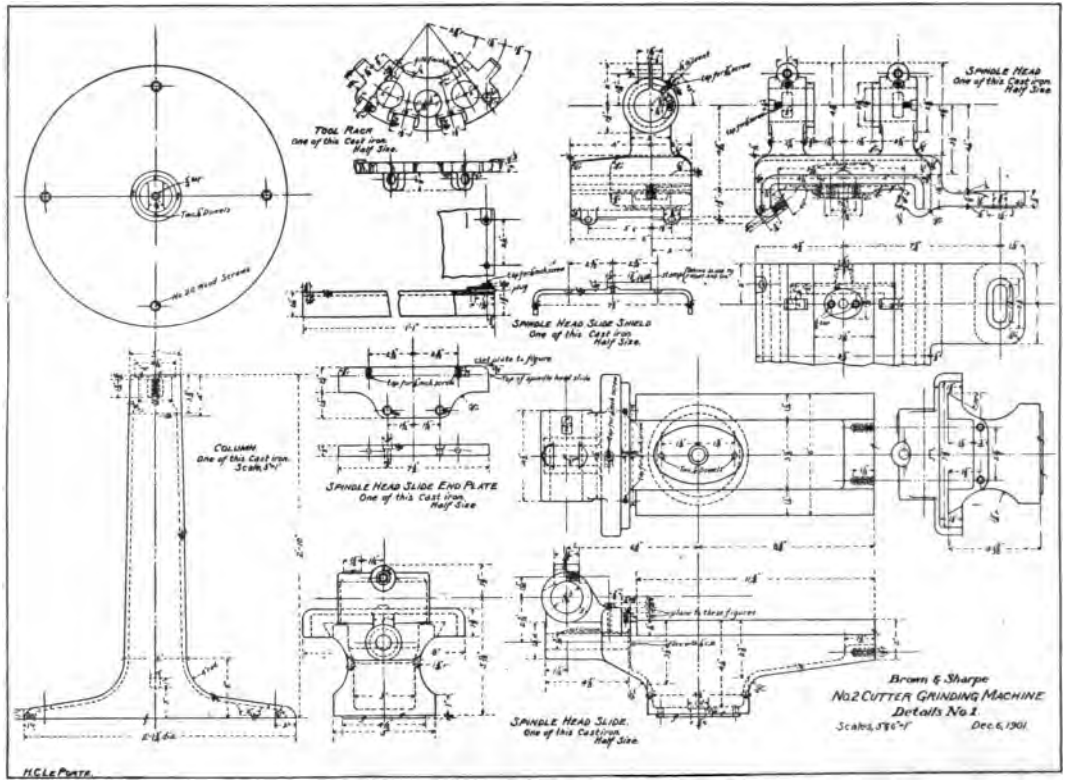
The courses in Architectural Drawing are carried on in the East Boston, Charlestown, Columbus Avenue, and Roxbury Schools.

The course in architectural drawing, covering a period of three years, aims to train artisans to make and read examples of architectural draughting. It also offers to the architectural draughtsman the opportunity to pursue advanced study in architectural design, in sketching and rendering, and the making of perspectives from plans and elevations.

The entering student is taught the making and reading of working drawings from simple models; the use of instruments, arrangement of views, obtaining sections, planning simple developments, dimensioning, and lettering. This is followed by the making of working drawings of architectural details, with a study of plans, elevations, framing details, and interior and exterior details of frame, brick, or stone construction.

During the second year the student interests himself in problems in descriptive geometry, in working out intersections and planning developments, particularly those which apply to architectural construction. Architectural perspective is studied during this year as well as proportions and details of doors, windows, balustrades, arches, arcades, and the various orders of architecture. The work of this year is concluded by the designing of some simple building, thus giving practice in elementary architectural design.

Upon returning for the third year's work the student is competent to undertake more advanced problems in descriptive geometry and the projection of shadows. He undertakes more ambitious projects in architectural design, working out problems in plans, elevations, and details of houses, some



DETAIL DRAWINGS OF A GRINDING MACHINE.

Sketched, measured, and drawn by a student of the Charlestown School. Reprinted from the Report of the Committee on Drawing. School Document No. 11, 1902.

of which have been erected under the supervision of our artisan students.

Students have undertaken an outline study of the history of architecture by a course of talks, readings, and the preparation of reports upon assigned topics. Such papers, illustrated by notes, sketches, and tracings, become of particular value to the student.

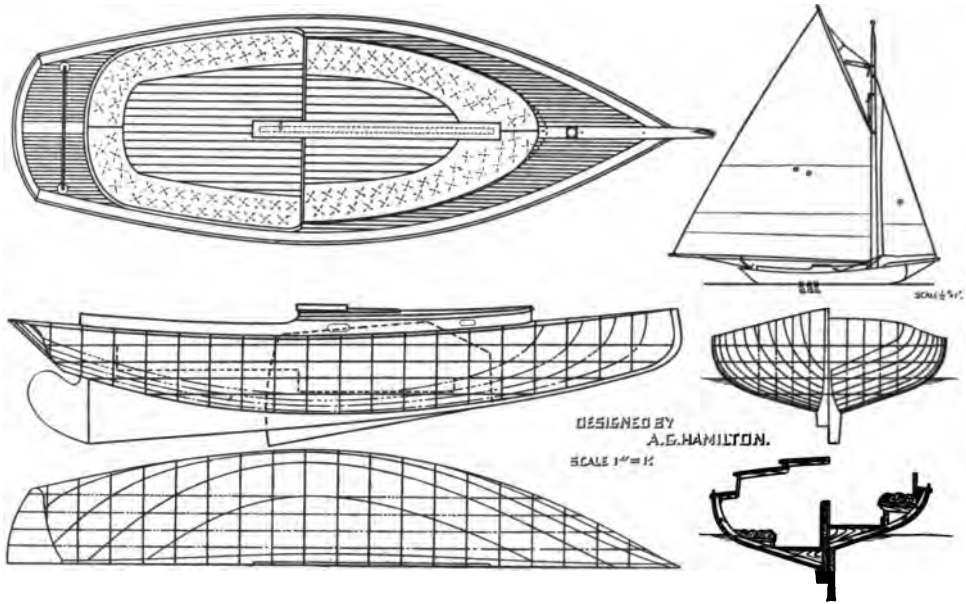
MACHINE DRAWING.

The courses in machine drawing like those in architectural drawing are carried on in the East Boston, Charlestown, Columbus-avenue, and Roxbury Schools.

The course in machine drawing, covering a period of three years, aims to train artisans to make and read examples of machine draughting. It also offers to the machine draughtsman the opportunity to pursue advanced study in machine design.

The entering student is taught the making and reading of working drawings from simple models; the use of instruments, arrangements of views, the obtaining of sections, planning simple developments, dimensioning, and lettering. Thus far the courses in machine and architectural drawing run parallel. Next the student undertakes the making of working drawings of machine details, following this by the valuable practice of making sketches and measurements of some machine, arranging upon the drawing board the details properly dimensioned and provided with finishing directions.

During the second year the student takes up problems in descriptive geometry, working out various intersections, and laying out developments, particularly those which apply to sheet-metal construction. The principles of crank, cam, and gear designs are touched upon during this year. Again the student carries out some machine from measurement, arranging for the proper delineation of details, dimensions,



SHIP DRAUGHTING.

An illustration of a Yacht designed by a student of the Charlestown School. Reprinted from a block used as a part of the exhibit of the Evening Drawing Schools at the Louisiana Purchase Exposition.

and finishing instructions. Tracing, lettering, and filing methods are also taught in this year.

Upon entering the third year the student is competent to undertake quite advanced problems in descriptive geometry and to master fairly intricate problems in intersections and development. He then advances to problems of machine design. Steam-engine, boiler, and dynamo construction is very much in evidence on the drawing boards of these third year students. Shop construction and arrangement is also undertaken by certain pupils well advanced on other subjects.

SHIP DRAUGHTING.

The courses in Ship Draughting are carried on in the Charlestown and the East Boston Schools.

The importance of Boston as a seaport, as well as a home of ship building and repair, has led the Committee to maintain for many years classes in ship draughting and design. The course, which is three years long, carries the student to the point of understanding ship design and delineation, and fits him to perform the calculations incident to daily practice in marine construction.

The entering student is first taught the making and reading of working drawings from simple models. He is introduced to the elements of projections, the finding of the location of points and lines, and he also studies intersection of planes, finding of traces, and other subjects of elementary projection. During the early part of the first year he begins his practice in draughting a vessel. After receiving instruction in the use of special tools for this work, he is taught how to find the sheer, half-breadth, and body plans of a vessel, and methods are given him for correcting and harmonizing these systems of lines. He also studies in this year the proper ending of water-lines, learns how to locate stations, and finds sections and diagonals.

During the second year the student learns to draught the complete plans of two kinds of vessels. First he sees the lines of a sailing vessel grow under his hand and follows the drawing of the hull, spar, and sail plans, until he knows the methods of the shipyard. This is followed by a project for a steel vessel propelled by steam. This is also carried through hull construction and details until the pupil is familiar with modern methods of marine steel construction.

Upon entering the third year the student is competent to take given dimensions, details of displacement, etc., and design a sailing vessel of wood or steel. He calculates the position of the centers of buoyancy, the height of transverse center and metacenter, the centers of lateral resistance, and the position of the center of effort of sails.

STRUCTURAL DRAWING.

Courses in Structural Drawing are arranged in the Charlestown and Roxbury Schools.

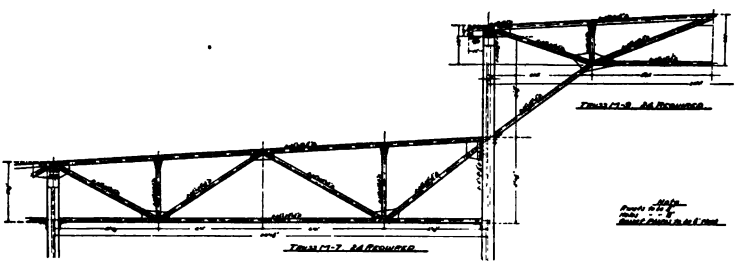
The extended use of steel construction in architectural and engineering projects requires a knowledge of this subject upon the part of the artisan and draughtsman.

The following course of study is offered in this subject:

First Year. — Making working drawings of simple models. Use of instruments. Views, sections, developments, dimensions, and lettering. Working drawings of structural details. Detail drawings of floor framing for an office building. Use of steel handbook, tracing, lettering, filing methods, and preparing bills of material.

Second Year. — Problems in descriptive geometry. Intersections and developments. Strength of materials and design of riveted joints, gusset and splice-plates, and bearing surfaces. Detail drawings of trusses, columns, or girders of more complex type. Methods of shopwork, template making, inspection and erection.

Third Year. — Advanced problems in descriptive geometry. Roofs, valley and hip intersections, etc. Strength of materials; tension, compression, bending moment and sheer. Stress diagrams for dead, wind, and snow loads on roof trusses. Design and detail drawings of one of the following structures: Roof of a power-house, with bracing, tie-rods and anchorage. Steel mill building. Simple riveted or pin connected bridge. Shop marking and construction lists. Taking off quantities for estimates of cost.



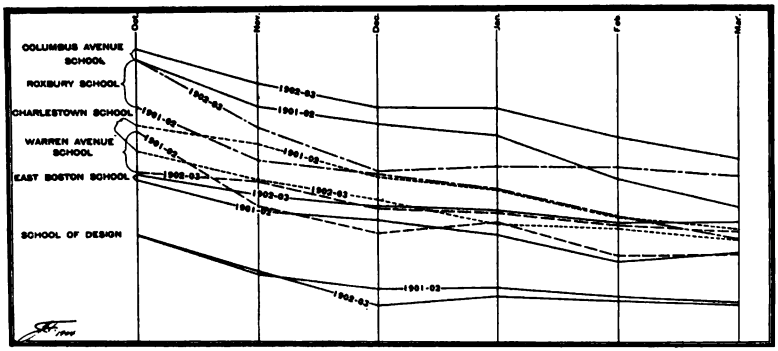


DIAGRAM SHOWING ENROLLMENT IN THE SIX SCHOOLS DURING 1901-02 AND 1902-03.

This diagram is compiled from the reports of attendance furnished the Superintendent's office. Different lines are given to different schools. Thus, Columbus-avenue School is shown in full line, Roxbury School in long and short dash line, Charlestown School in short dash line, etc. It will be noted that the season of 1902-03 marked the lowest local interest in the Charlestown School as well as the School of Design. Both schools have since been built up remarkably under the influence of the new Course of Study.

(*b*) INCREASED ATTENDANCE DUE TO ENLARGED OPPORTUNITIES.

Immediately following the introduction of this new course of study the enrollment of all schools increased. As soon as it became generally known that wider opportunities were being offered in these schools, the students came in larger volume and the enrollment in all schools for 1902–03 was far ahead of that of the preceding year. Particularly was this true in the classes of those schools offering freehand instruction, for here the costume model had been introduced and wide interest aroused. When the Christmas season came, with the attendant evening work of many of our pupils, it was interesting to note the hold of the new work upon these students. In only two schools did the attendance drop to as low a point as the corresponding attendance of the previous winter. In all others it was considerably ahead. The marked approval of the new course of study came, however, in the season after the holidays. It is customary for the

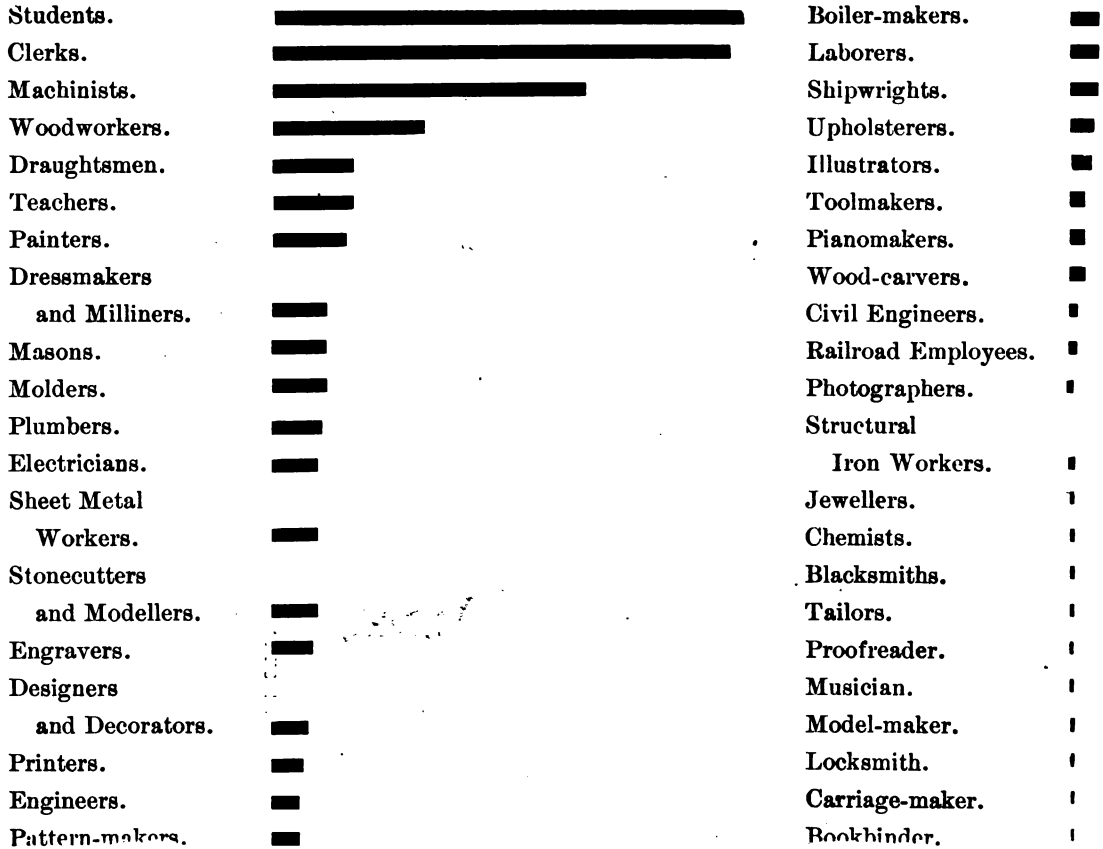
attendance to increase somewhat in January, and then to fall off steadily until the end of the year. In 1902–03, however, registration was constant in the second half of the term, and the attendance did not fall off as it had been doing so steadily during the previous decades. These two features, new pupils in the second half-year and more constant attendance upon the part of all pupils, were silent witnesses of the wisdom of your Committee in broadening this work.

Equal enthusiasm and appreciation of opportunities would come from the opening of courses for which we now lack room and equipment.

THE HELP THESE EVENING DRAWING SCHOOLS GAVE AN EXPERT TINSMITH.

You asked me to obtain some facts relating to Mr. ————'s education before he attended the evening drawing school. Mr. ———— is a very modest man and somewhat reticent about such matters, but he stated that he was born in England about forty-seven years ago, entered a tinsmith's shop when a mere boy, became discouraged after a few months' employment there, and apprenticed himself to a master bricklayer. After learning this trade he went back to tinsmithing again, and about eighteen years ago connected himself with the concern by which he is now employed. The special benefit he has gained by the work he has taken up with us in the evening school is that he is able to plan for new problems, to drop mere "rules of thumb," and lay out his work in a more understanding way, and to save large amounts of time and material.

[From a letter to the Director of Drawing.]



(a) CHART SHOWING THE TRADES REPRESENTED IN THE EVENING DRAWING SCHOOLS.

Reprinted from the Report of the Committee on Drawing. School Document No. 11, 1902.

III. STUDENTS OF THE EVENING DRAWING SCHOOLS.

*(*b*) WHY STUDENTS COME TO STUDY WITH US.

Early this season (1903–04) this request was presented to each of the thousand pupils in the six evening drawing schools:

"Give your reason for coming to this school, and what you intend to do with the knowledge gained here."

The replies easily group themselves under related interests and similar aims. A few of these statements follow:

"Drawing is required in my business."
"To learn to read drawings."
"To help me in learning my trade."
"In order that I might be worthy of a higher position, and consequently command more salary."
"To fill a more responsible position."
"To equip myself more fully for a position offered me."
"So I might have the knowledge to be a foreman."
"To make myself worth more with what I learn here."
"So I can be able to plan for a building on our vacant real estate holdings."
"To improve my chances as a bricklayer."
"To learn to read house plans."
"To aid me in estimating upon my buildings."
"To figure details and estimates."
"Because I wanted a technical education and could not afford to pay for it."

*For notes on (*a*) Occupations Represented, see opposite page.

"Because my shopmates told me this was the best school in Boston."

"As apprentices we are not taught anything by the journeymen. On the contrary, they keep their secrets well guarded, and we have to be ever on the alert to find out anything concerning our trade." [Statement of a lad as to reason of entering.]

In order to test the earnestness of the students this request was also offered:

"What do you intend to do with the knowledge gained here?"

The replies were uniform in the hope of utilizing the training in chosen fields of labor, but varied somewhat in application to details. Only a few of these answers are quoted, but they serve to show the spirit that is in these men:

"To earn my living."
"To go higher."
"To start in business for myself."
"To be a superintendent of a shop."
"To become a first-class textile designer."
"To take over my father's business."
"To enter Technology."
"To enter the Art Museum Schools."
"To enter the Normal Art School."

(c) LIFE SUCCESSES OF EVENING DRAWING SCHOOL STUDENTS.

Recently the instructing corps was asked to recall students who had succeeded in their work and who have utilized their knowledge to their financial advantage. A hasty reading of this partial list should give an answer to the questions, "Have These Schools Done Good Work?" and "Are They Worthy of Support in Their Extension?"

"I know of one young man who got his start in the evening drawing schools, and whose whole life has been changed by its influence. Through the knowledge acquired there he gained a position as draughtsman. He then went to Paris and passed the examinations to the École des Beaux Arts.

"Since his return to America he has been instructor in one of the largest technical schools, and I trust a source of inspiration to others, who in their turn will pass the good work along." [Personal testimony of an instructor in the Massachusetts Institute of Technology, himself a graduate of our schools.]

The following well-known artists, architects, designers, and teachers have at one time or another been students in the Warren-avenue School:

Thulstrup, noted illustrator; Christian Roos, head designer for a New York wall paper concern; Albert H. Munsell, senior teacher Massachusetts Normal Art School; Robert Vonnoh, portrait painter; Child Hassam, artist and illustrator; Leslie Miller, Director, School of Industrial Art, Philadelphia; C. Howard Walker, noted architect and teacher; Ralph Cluken, head artist of Forbes Lithograph Company; Joseph Stewart, designer; Joseph Frizzell, Brookline Manual Training School; Eliot

Keene, art editor of Household Magazine; A. C. Spencer, head draughtsman for United Shoe Machine Company; Flora McDonald, leaded glass worker.

Reminiscent notes from the Roxbury School:

Cummings, a carpenter. "He obtained backing for an education, went to Dean Academy and Harvard University."

Cooper, a carpenter, "a material man, earning a bare living for his family"; now has "a good job (interior fitting from drawings) at good pay, and steady work."

Harvey, draughtsman, "$10 per week; now earns $15."

Driscoll, office boy; "tried to help himself by course in correspondence school; entered our second year course; did not get pay enough to keep soul and body together; now has fair pay and congenial work; when work is slack everyone in office is dropped but him; he runs office until work is abundant again."

Meyer, "started as office boy; now able to keep his position during good and bad times."

Gramer, "45 years of age; occurred to him there should be some way of finding true shapes of irregular sections other than the expensive methods of his firm; gained his knowledge in our school; his ability to find true sizes and shapes of irregular surfaces has saved his firm a great deal of money and placed him in charge of a department with big raise in pay; his ability to do this work the most gratifying thing he had ever accomplished; looked upon as a 'wizard' by employers and employees, who, since they did not know his methods, considered him indispensible."

Heil, artist, illustrator, and teacher.

Hutchinson, fitted for Lawrence Scientific School — Architect.

Rose, Teacher of Freehand Drawing and Design, Rhode Island School of Design and Manual Training High School, Providence.

Newnham, "an architectural apprentice; by persistent efforts he has now pushed forward to full charge of the office."

Nordland, "now occupying an important position in a decorative establishment in Philadelphia."

Zotto, ornamental sculptor; "now earning a good salary."

Miss Butler. "We secured a position for her to design for a manufacturer in the city; is giving good satisfaction, and has had her salary raised twice in one year."

—— ——, "a draughtsman in a furniture plant; later he went to the Institute of Technology, and after that obtained a position as manual training teacher in a western city."

"One student entered the mechanical course; stirred up his interest in scientific work and caused him to give up his position in mercantile life to enter Institute of Technology, from which he graduated."

"Carpenters who have attended the school have said that they learned that which has enabled them to give up working by the day for others and to go into business on their own account."

Notes from the East Boston School:

Graham, Litchfield, partners in stair building; prominent business men. Lewis, draughtsman for Lockwood Manufacturing Company. Wiley, engineer and draughtsman, Boston Tow Boat Company. George, artist, designer, teacher in Massachusetts Normal Art School and Lowell Textile School.

Notes from the Columbus-avenue School:

"One of the most striking points concerning these evening schools is that at the present time there are connected with the school corps of teachers several successful instructors, who commenced as students in the schools. One who did teach up to a few months ago left the service because he became too busy with his daily work, having charge of one of the largest drawing offices (United Shoe Machine Company) in the country."

Greenleaf, successful architect.

Hodgdon, successful architect.

"The evening drawing schools are a god-send to young men." [From a letter of a former student.]

Donahue, a present student. "He is an apprentice in a stone-yard where quite a deal of contract work is prepared from drawings. This young man has been put in charge of 'laying-out' work from drawings, a task for which our course distinctly fitted him."

"One (now a successful architect) was formerly a clerk in the smallware department of a department dry goods store, and designed and superintended the building of several houses while still a clerk, doing the superintending early in the morning before his hours at the store."

"I heard some time ago of a clerk losing his position and then taking up draughting at more money than he obtained for clerking, and his knowledge came solely from our evening drawing school courses."

"Some students have sold the original plans they designed while with us for cash, and others have obtained the designing of simple cottages on the strength of their work in the drawing schools."

"I can truthfully say, however, that with at least five years' faithful work in the evening schools anyone ought to be able to enter college." [Letter of former student, now in Harvard University.]

"I began mechanical drawing in the Boston Evening Drawing Schools. I knew nothing of drawing. I was working as apprentice machinist for Whittier Machine Company, and have since become assistant foreman with this company. I would recommend the Evening Drawing Schools to anyone seeking promotion." [Letter from a former student.]

"I was clerk in the office when I first attended the Evening Drawing School. I am now assistant foreman with the Whittier Machine Company. The knowledge gained was greatly responsible for my advancement to this position."

"It gives me pleasure to say that one of the young men from our school has obtained a position under the United States civil service (competition with about 100 men), he having obtained the best of two positions offered, and goes to Manila on Tuesday next at a salary of $1,600 as Refrigerating Engineer. [Letter from an instructor to the Director of Drawing.]

A few words from the Charlestown School:

Wight, "now superintendent of construction for prominent architectural firm. Salary $1,500, and likely to go higher."

Archer, "doubled his pay as a bookkeeper when he learned to read drawings."

Houston, "had many improvements in his mind and needed drawing to assist in their development. Has trebled his salary since 1892."

Isele, "a blacksmith helper. Now proprietor. Success due to ability to handle drawings."

Raymond, a boy in surveyor's office. Now draughtsman at Navy Yard.

Greene, student of ship draughting. Now holds the highest position at Navy Yard possible for civilian grade.

McBride, "Got his start here. Since made rapid progress through the Glasgow and Cramps yard, and is now prominent as designer at Cramps. Says, 'I never would have done it but for Charlestown Evening Drawing School.'"

"The writer, then a fireman on a Fitchburg Railroad locomotive, attended this school in 1884. Appointed teacher of mechanical drawing in 1886. Now instructor of drawing in Rindge Manual Training School, Cambridge, and Principal of Somerville Evening Drawing Schools." [Letter of a Principal to the Director of Drawing.]

The Charlestown School mentions as some of its prominent graduates in ship-draughting eleven chief carpenters of the Navy Department; six chief and associate draughtsmen at various Navy Yards; draughtsmen and constructors in responsible positions at the Fore River Shipbuilding Works, Cramps Shipbuilding Company, Camden, N. J., Bath Iron Works, and Newport News Shipbuilding Company; McVey, the lamented Yachting Editor of the Boston Herald; George F. Lawley & Son, builders of the "Puritan" and other famous yachts.

Dreghom, a machinist, joined school simply to learn to read drawing, to enable him to do his daily work better; after first year decided the draughting room was better than the shop; entered as tracer; now full draughtsman at B. F. Sturtevant's Company.

Brown, a machinist, had an idea for a machine; entered school to learn how to draught it; planned, patented, and built the machine, which is so successful he must now give his whole time to the business it is building up for him.

Hurley. a mason working for himself; house plans were unknown quantities to him; all his estimates were either guess-

work or based on similar jobs previously completed. He has now left the small house jobs to which he was limited, and successfully estimates on anything. He is doing a school building now.

O'Connell, a journeyman wrought-iron worker, became expert and artistic; finally went into business for himself.

These four citizens represent men for whom the Evening Drawing Schools have offered opportunities to train to earn their own living — their art training came from this source alone:

"———, formerly a bookkeeper, obtained a position to make drawings for a publisher, with art department of a city newspaper, doing original and well-paid work."

Robinson, a colored lad, studied drawing evenings; obtained position with firm making drawings for advertisements.

Chandler, on same kind of work.

Hoag, works on signs, transparencies, and posters.

Notes from School of Design (recently organized):

"Can mention one boy of unprepossessing appearance; worked in a carpet factory; now by the benefit of his work with us has the gratifying result of designing patterns independently for two large houses."

"Another pupil is designing patterns in a New York mill."

"Another is designing for leaded glass in this city."

"It is pleasant to know that almost all who attend are daily occupied in positions where designing directly benefits their work, and will in time help them to higher positions. I allude to dressmakers, furniture designers, engravers, illuminators, weavers and printers." [Letter to the Director of Drawing.]

IV. EXTENSION OF INDUSTRIAL ART TRAINING.

(*a*) SOME STEPS TAKEN TOWARD A FURTHER EXTENSION OF THE EVENING DRAWING SCHOOLS.

On the occasion of the closing exercises of the Evening Industrial Drawing Schools, held Thursday evening, April 2, 1903, Dr. James A. McDonald, chairman of the Committee on Drawing and senior member of the School Committee, commenting upon the good and thorough work which these schools are doing, touched upon the need of further extending the courses of study to include actual practice in applied art. Speaking of the necessities of these schools, he said:

"European cities devote large, handsome structures to industrial education, having found their value repaid many times over. Boston has nevertheless kept pace with them in the character of her industrial drawing courses, notwithstanding the narrow, inconvenient quarters provided, which are unworthy of a great city.

"We have found the funds for the proposed erection of the greatest medical school in the world, and should be able to, and I feel sure we can, raise enough for a school of applied arts second to none in the world. And I hope before another year to see the steps taken which will ultimately give us a structure wherein our evening art students will find a fitting and adequate home."

In his annual report, presented to the School Committee May 26, 1903, the Superintendent of Schools said, in reviewing the history of these Free Evening Industrial Drawing Schools:

"The first of these schools was opened in 1870, in compliance with an Act of the Legislature of that year requiring all cities and towns having ten thousand or more inhabitants to maintain such schools. There are now six of these schools — one in East Boston, one in Charlestown, one in Roxbury, and three in the city proper. The branches taught are freehand, machine, and architectural drawing, also clay modeling (at Warren avenue), ship draughting (at Charlestown), and (in the School of Design at Warren avenue) the principles of design, composition, and color, as applied in all branches of industry.

"There are some interesting statements concerning the recent improvements in the courses of study in these schools and concerning the present and future needs in the matter of accommodations, which may be read in the Report of the Director (see below).

"There is, in my belief, a large future development awaiting the industrial drawing school idea in this country and in this city. The application of art to an industry cannot be adequately taught through drawing alone. It is not enough to be able to produce an artistic design on paper, there is equally needed the ability to work out the design in the material to which it is applicable. Art ideas may, indeed, be expressed by drawing, but the application of these ideas to material requires the craftsman's knowledge of the material and of the methods of handling it. Therefore the industrial drawing school when fully developed will become a school of arts and crafts. It is an inspiring thought that Boston may some day have an Institute of Arts and Crafts, into which shall be gathered the now somewhat scattered schools for industrial art instruction, and from which shall be sent into the industrial world young men and women completely instructed both in the theory and in the practice of their chosen art or craft. One could hardly suggest a more attractive enterprise for endowment."

The matter in the Report of the Director of Drawing, to which the Superintendent refers is as follows:

"I would recommend for your most careful consideration the question of housing the classes of all these schools, except Charlestown and East Boston, which are now well established in

city buildings. It will take but a few more pupils in the Public Latin School to require the use of the rooms now occupied in the evening by the Warren-avenue School and the School of Design. Where these central and most important schools can then go will be a very serious problem. The Roxbury School is in hired quarters at 2307 Washington street, a condition which is also true of the Columbus-avenue School. This annual rental (actual and prospective) is a drain upon the city treasury which should be obviated by provision for these four schools in some central city building planned for this purpose.

"The quarters occupied by the Columbus-avenue School are absolutely unsatisfactory. Here is a school composed largely of machinists, carpenters, and masons; a school that annually has a waiting list of at least fifty more students than can be accommodated; a school with unrivalled attendance and interest, with courses of study of the highest technical grade reached in our evening work. Yet this school is quartered in gas-lighted rooms — the glare from the jets being most detrimental to eyesight, and the attendant heat so great that little other warmth is needed on the coldest nights in winter — rooms which become almost unbearable in the early spring. I have seen a student drop from his seat to the floor in a faint from the conditions which prevail in this school. I have seen students' work, representing much patient toil, ruined by the drippings from a leaking roof. I have been ashamed to meet visiting teachers in this school, and have to apologize for location, ventilation, sanitary arrangements, and lighting. Yet this is the school which boasts, with good reason, of the success of a graduate student who entered the United States Civil Service examinations in contest with one hundred others, and, taking first rank, now holds a responsible and lucrative appointment in Manila.

"We pride ourselves as a city in that we are not like other American centres with day pupils on the streets. We erect adequate buildings for primary, grammar, and high schools, and establish normal training that our young women may be educated as teachers. We accept the trust imposed by the laws of the Commonwealth of Massachusetts, and maintain these evening schools of art for industrial workers in our city. We do not, however, provide for these evening schools in any measure com-

mensurate with their importance in the industrial life of our people, and by the lack of such provision we hamper their development and restrict their usefulness. While the pupils in the day schools are provided as a matter of course with reasonable and proper facilities, we invite the pupils of these Evening Drawing Schools — young men and women of serious purpose and representing the best of our industrial citizenship — to pursue their work in quarters that are inadequate and in some respects wholly unsuitable.

"These Evening Drawing Schools enroll over a thousand pupils a year; our courses of study are broad and helpful, else these industrial workers would not spend their evenings therein; and our teachers are the best that generous salaries can command. While we may send our work on exhibition into such magnificent plants as those built by the cities of England for their schools of art, and compel recognition of what we accomplish in the fields of industrial art, it is of vastly more importance that we should be allowed to conduct our efforts here at home under conditions far better than those existing to-day and commensurate with the dignity and importance of the industrial interests of our city."

(*b*) THE EXTENSION OF COURSES OF THE EVENING DRAWING SCHOOLS WILL HAVE BROAD PUBLIC SUPPORT. THE TIME RIPE FOR THE MOVEMENT.

In so important a matter as a radical extension of the courses herein described we should move carefully and conservatively, and should be well assured of broad public support and sympathy. In order to sound the sentiment of our citizens in this regard a circular letter was prepared in the late spring of 1903. It was most heartily endorsed by the President of the School Committee, by the Chairman of your Committee on Drawing, and by the Superintendent of Schools before it was sent out to a selected list of thoughtful citizens. This mailing list, while not large, represented our strongest and best in many walks of life. It included those highest in the councils and honor of the State and city, pastors, social workers, business men, employers, labor representatives, art patrons, and educators. This letter, after stating something concerning the history and needs of our evening drawing schools, continued as follows :

"Any extension of the course of study to provide for the actual application of the work of these evening schools in processes and crafts would have to be thoughtfully considered and assured of broad public moral support. To this end this letter is sent to you and certain other representative Bostonians in many walks of art, culture, and industrial life.

"Such classes would become the goal of the many day students of our grammar and high schools who show unusual aptitude for creative art expression in these lower grade schools, but who now can only look forward to common occupations with low grade

remuneration. They would offer to artisans who now seek instruction in the badly hampered quarters of our evening schools better opportunities for advancement in their profession by the increment of applied art training.

"The aim would be entirely different from the courses of a trade school. Such classes could not interfere with the field of the Mechanic Arts High School, which is that of fitting for scientific schools or developing a broad rational training for executive or professional life. The province of such work would be different from that of the Massachusetts Normal Art School in its training of teachers; and widely different from the schools of the Museum of Fine Arts, which aim to give day instruction along the line of fine and applied arts to students of another grade.

"Such classes would have a field all their own, namely: To take the son and daughter of the humblest as well as most favored citizen and offer training leading to happy, contented industrial art life, affording remunerative return in contrast to the poorly paid, overcrowded occupations which are to-day unfortunately the lot of too many of our citizens.

"Such a scheme would ultimately include the application of designs in weaving and printing of carpets, hangings, and floor coverings, the manufacture of wall-paper, production of leaded glass, cutting of ornament and sculpture in stone, modeling for casts and terra-cotta, the production and decoration of pottery, artistic printing and bookbinding, work in metals, wrought iron, and leather, basketry, etc., etc. In short, to provide instruction in industrial design for all branches of applied arts suitable as a livelihood for New England men and women.

"Do you consider the time now ripe to begin a movement toward the establishment of such courses in connection with our evening industrial drawing schools? If so, would you be willing to give your moral support to the project, and to urge the establishment of such classes, provided means could be secured by endowment or appropriation to make such an undertaking practicable?

"I trust that this letter may be considered solely as a means to sound the amount of moral support that such an undertaking must have among our representative citizens. No use of any names in public prints is contemplated."

Most encouraging responses (all of which are on file in this office) came from this inquiry, showing that public appreciation was assured the extension of this work, and that the time was ripe for its accomplishment. Quotations from a few of these letters will be interesting reading:

"We are a State without raw materials. For our supremacy we must depend entirely upon the superior intelligence and skill of our citizens. Too much attention cannot be paid to the development of ideas and training that will make us able to compete successfully with those States that have the cotton and wool, the coal and the iron right at their doors.

"I trust the effort may be accorded the hearty support of our public-spirited men, and of those who have assumed in particular the duty of the education of our youth."

"I am in full sympathy."

"While the advance in instruction in drawing made by the city and State since the first efforts were made has been very gratifying, it is evidently very necessary that that advance should be carried much further. I shall be glad to assist in any way toward carrying out plans so broad as those which you propose."

"I have read with much interest the prospectus of the Industrial School for which you are laboring to secure larger and better facilities for carrying forward this industrial work among the young men and women of our city, in order to fit them better for their life work. I heartily sympathize with this important matter."

"I am convinced that anything in reason that can be done to give to students greater opportunities for obtaining instruction in a technical education will always be of great benefit to them in later life."

"The demand for it has long been expected, and everyone familiar with the conditions will be glad to give both encouragement and support."

"Such an institution would fill a place in the City of Boston long desired and needed. There is no institution where the children of the poorer classes can obtain the knowledge which would fit them to earn their livelihood in any of the great industrial arts. Colleges and institutions of science are open to those who can afford to attend, but the great masses, who have to begin early in life to earn their own living, would be greatly benefited by a School of Applied Arts."

"Aside from commerce, New England can excel in the development of the higher branches of industrial products, and to compete with other sections her people must do better work than the mere utilities; these can be done by the million anywhere. I am heartily in favor of the plan."

"I approve most cordially of the project, and I commend it to the authorities that will have the matter in charge. I favor heartily any plan that will bring into common use a practical knowledge of the different conditions of development as shown in industrial education. All such progress makes for a higher and a happier life."

"I do approve this undertaking."

"The plans embody much sense with enthusiasm, a combination that always brings results if it is possible to have any at all.

"More and more in New England, especially, must we take heed to the signs of the times and try to maintain an expert leadership which comes from skilled training in the arts and crafts."

"Everything that possibly can be done for our evening classes ought to have hearty support. It is help extended to those who are making an effort to better themselves against odds, and they deserve the encouragement which comes from good conditions."

"I give my support to the project for the extension of the course of study in industrial design in our evening schools. I readily see how it can be made the means of great good to young men and women by preparing them for a greater variety of industries in the various branches of applied arts."

"You know how deep is my interest in any endeavor that will bring to graduates of grammar schools any form of systematized work that will eventuate in a profitable occupation. For years I have watched my graduates go forth with no openings that would satisfy their desire for getting on in the world. It has become a pitiful spectacle to observe them blundering about, not knowing where to go nor what to do, but seeking some sort of work that would respond to their aptitudes. The path has been worn pretty smooth that led to the department stores, deplorable and heart-breaking the journey thereon. I applaud any endeavor that will open up a new field of work for the girls and boys that are set free at the school-leaving age. The time is ripe for the movement."

"I think well of the plan."

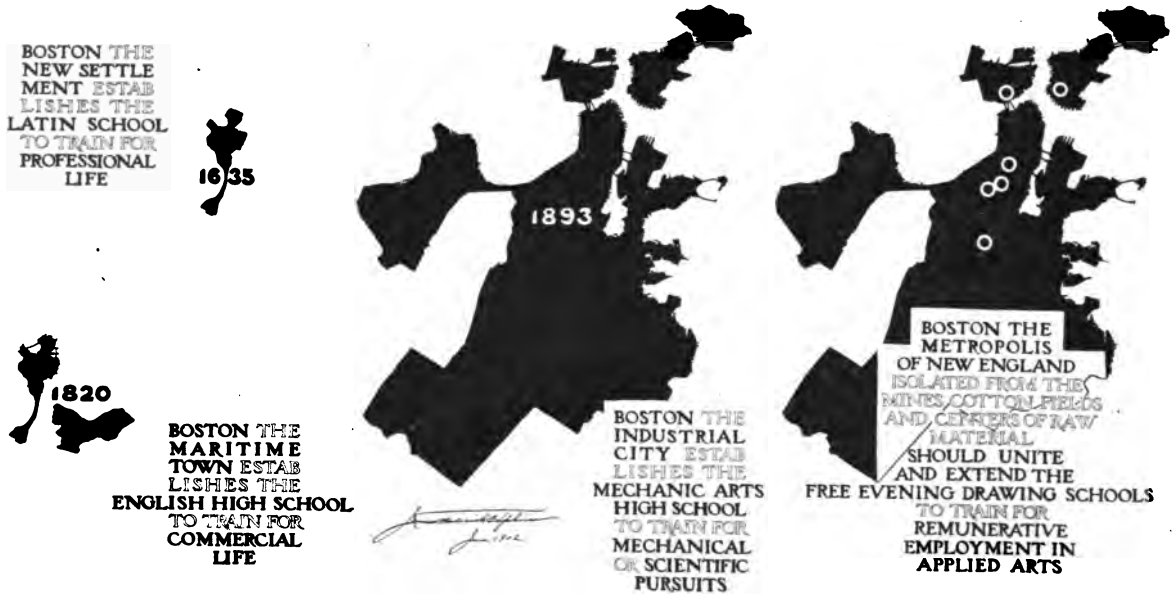
"The matter has my hearty approval."

"I am warmly in sympathy with the purport of your circular as to the development of an evening school of applied art."

"Most assuredly they (the evening drawing schools) are worthy the moral support of every citizen who hopes for the continued prosperity of New England.

"Our only hope lies in the superiority of our industrials, and our educational facilities must equal if not surpass those of the old world in every branch related to mechanical production.

"The persons who attend the evening schools leave no doubt of their earnest desire to obtain an education, and any influence which manufacturers may be able to wield in aid of industrial education should be exerted."


BOSTON THE NEW SETTLEMENT ESTABLISHES THE LATIN SCHOOL TO TRAIN FOR PROFESSIONAL LIFE
1635
1820
BOSTON THE MARITIME TOWN ESTABLISHES THE ENGLISH HIGH SCHOOL TO TRAIN FOR COMMERCIAL LIFE
1893
BOSTON THE INDUSTRIAL CITY ESTABLISHES THE MECHANIC ARTS HIGH SCHOOL TO TRAIN FOR MECHANICAL OR SCIENTIFIC PURSUITS
BOSTON THE METROPOLIS OF NEW ENGLAND ISOLATED FROM THE MINES, COTTON FIELDS AND CENTERS OF RAW MATERIAL SHOULD UNITE AND EXTEND THE FREE EVENING DRAWING SCHOOLS TO TRAIN FOR REMUNERATIVE EMPLOYMENT IN APPLIED ARTS

EDUCATIONAL GROWTH OF BOSTON.

Chart showing (1) the Increase in Area of the City of Boston, (2) the Establishment of the Public Latin School, the English High School, and the Mechanic Arts High School, (3) the Purposes of these Establishments, and (4) the Opportunity of Boston, as the Metropolis of New England, to Move in Industrial Art Training.

V. HOW BOSTON HAS ESTABLISHED SCHOOLS TO TRAIN FOR SPECIAL WALKS OF LIFE.

(*b*) FOUNDATION OF THE PUBLIC LATIN SCHOOL.

"On the 13th of the second moneth, 1635 . . . Att a Generall meeting upon publique notice . . . it was . . . generally agreed upon that our brother Philemon Pormort shall be intreated to become scholemaster for the teaching and nourtering of children with us."

Thus reads the quotation from the Town Records, and thus came into existence, on "the street going up to Elder James Penn's" (School Street), the oldest school in the

PUBLIC LATIN SCHOOL.

Reprinted from a Handbook of the School Exhibits at the Boston Convention of the National Educational Association, 1903.

Boston expended upon this school in the year ending Jan. 31, 1905, at least $73,150 in preparing 563 boys (average attendance) for professional life.

United States with a continuous existence. One year, therefore, before the foundation of Harvard College, and more than three years before that institution was opened, the new settlement of Boston prepared to undertake the training of her youth for professional life. From the start it was a school for higher instruction, a school especially for Latin and Greek. It was called "The Free Schoole," "The Free Grammar School," and "The Free Latin Schoole," and it received its support from the town.

Thus the ministers, lawyers, and doctors of that early day were partially prepared at least for their professional life at public expense, and thus through all the long and successful years of this school's history it has been the proud thought of many a Boston professional man that he was prepared for college at the free "Public Latin School."

(*b*) ESTABLISHMENT OF ENGLISH HIGH SCHOOL.

At the close of the war of 1812, with England, the merchant adventurers of Massachusetts found themselves with more privateers upon their hands than they knew how to manage to the best advantage. How best to employ the energies of more than one lively crew must have taxed the resources of the owners to the utmost. The question was partially settled by sending these vessels upon voyages to hitherto unknown trading areas, and thus was built up the commercial supremacy of New England. Boston grew rapidly as a great maritime centre, and the life of trade and commerce began to be of much concern in the commercial town. In addition to the Latin School, already a time-honored institution, and widely known as the leading school among those which fitted boys for the university, the system of public instruction in Boston consisted, at that time, of the intermediate or English grammar schools, and the primary schools which had been established only three years

ENGLISH HIGH SCHOOL.

Boston expended upon this school in the year ending Jan. 31, 1905, at least $101,650 in preparing 884 boys (average attendance) for industrial and commercial life and for higher institutions.

before. The importance of providing a school of higher grade, which should offer to the youth of the town not intending to enter college the opportunity for pursuing an advanced course of study, had come to be recognized by the School Committee. Early in the year 1820 a committee, headed by a prominent merchant, reported that a new school be established to be known as the English Classical School. "The mode of education now adopted," said this committee, "and the branches of knowledge that are taught at our English grammar schools are not sufficiently extensive . . . to qualify a youth to fill usefully and respectably many of those stations, both public and private, in which he may be placed. A parent who wishes to give a child an education that shall fit him for active life, and shall serve as a foundation for eminence in his profession, whether mercantile or

mechanical, is under the necessity of giving him a different education from any which our public schools can furnish." * This report was adopted in School Committee, and in the winter of 1821 the citizens voted in Town Meeting to establish the English Classical School, now the English High School.

MECHANIC ARTS HIGH SCHOOL.

Reprinted from a Handbook of the School Exhibits at the Boston Convention of the National Educational Association, 1903.

Boston expended upon this most complete equipment in the year ending Jan. 31, 1905, at least $77,650 in preparing 706 boys (average attendance) for mechanical or scientific pursuits.

During the whole period of the history of this school it has had an unbroken record as an institution of sound learning and usefulness, accomplishing in full measure the end for which in the wisdom of its founders it was designed, and sending out into active commercial and industrial life thousands of young men of broad training and noble purpose.

Thus the maritime town planned to train its lads at public expense for commercial or industrial life.

* The diagram on page 54 gives the date of the action of the School Committee rather than that of the action of the Town Meeting.

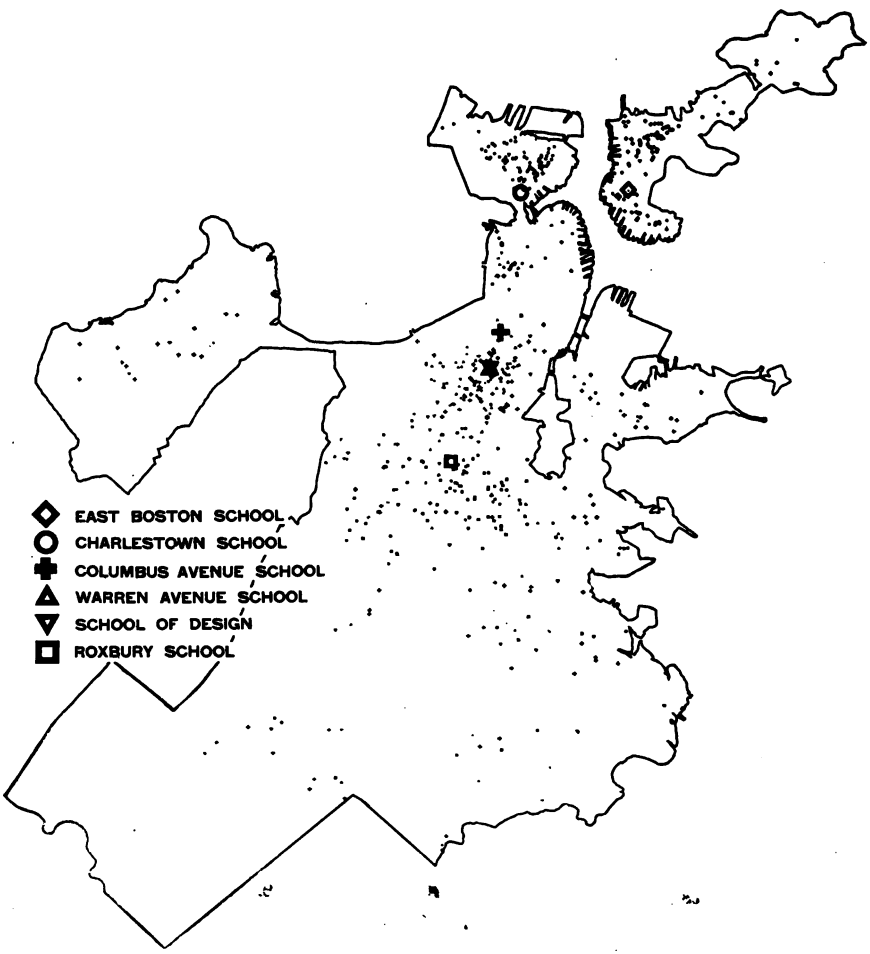
(c) THE BUILDING OF THE MECHANIC ARTS HIGH SCHOOL.

In the year 1893 — some ten years or more after the foundation of manual training schools in St. Louis, Chicago, Philadelphia, and Toledo — Boston established the Mechanic Arts High School. This was to be an institution whose special function was to furnish systematic instruction in drawing and the elements of the mechanic arts, in addition to a thorough high school course in which the mathematical and scientific branches predominated. The character and purpose of this school should be clearly understood. It is not a trade school, nor is it an institution planned for the pupils of any particular class or social condition. It recognizes the development of character through the contact with the mechanic arts, and its training leads naturally towards mechanical or scientific pursuits. Thus in recent years, Boston, the great industrial city, has elected to train her boys at public expense by means of most interesting courses in the mechanic arts.

(d) BOSTON'S OPPORTUNITY TO OFFER TRAINING FOR APPLIED ARTS.

New England, once the largest manufacturer of crude products, now faces the removal of these industries to the sources of supply and cheaper labor. The hope of her wage-earners of the future lies in the production of a finer output made more valuable by the applied art knowledge of her skilled laborers. As France met her greatest crisis, the Franco-Prussian war debt, largely from the products of her art industries, so New England, isolated from the mines, the cotton fields, and the wool growing districts, must sooner or later look to applied arts for her best and most remunerative productions.

Boston, the metropolis of New England, the first city in



SKETCH MAP OF BOSTON,

Showing the location of the six Evening Drawing Schools, and the home locations of the students in attendance on one night of the term. It will be noticed that the centre of population attending these schools is between the Warren-avenue and Roxbury Schools.

America to introduce industrial drawing into the public schools, the first American city to provide free evening industrial drawing schools for her wage-earning artisans (enrolling over twelve hundred students per year), now faces the opportunity to adequately house these students by the establishment of a free School of Applied Arts.

(*a*) It would offer to artisans, who now seek evening instruction in the badly hampered quarters of our evening schools, better opportunities for advancement in their chosen professions by the increment of applied art training.

(*b*) It would be the goal of the many day students of our grammar and high schools who show unusual aptitude for creative art expression in those lower schools, but who can now only look forward to common life occupations with low grade remuneration.

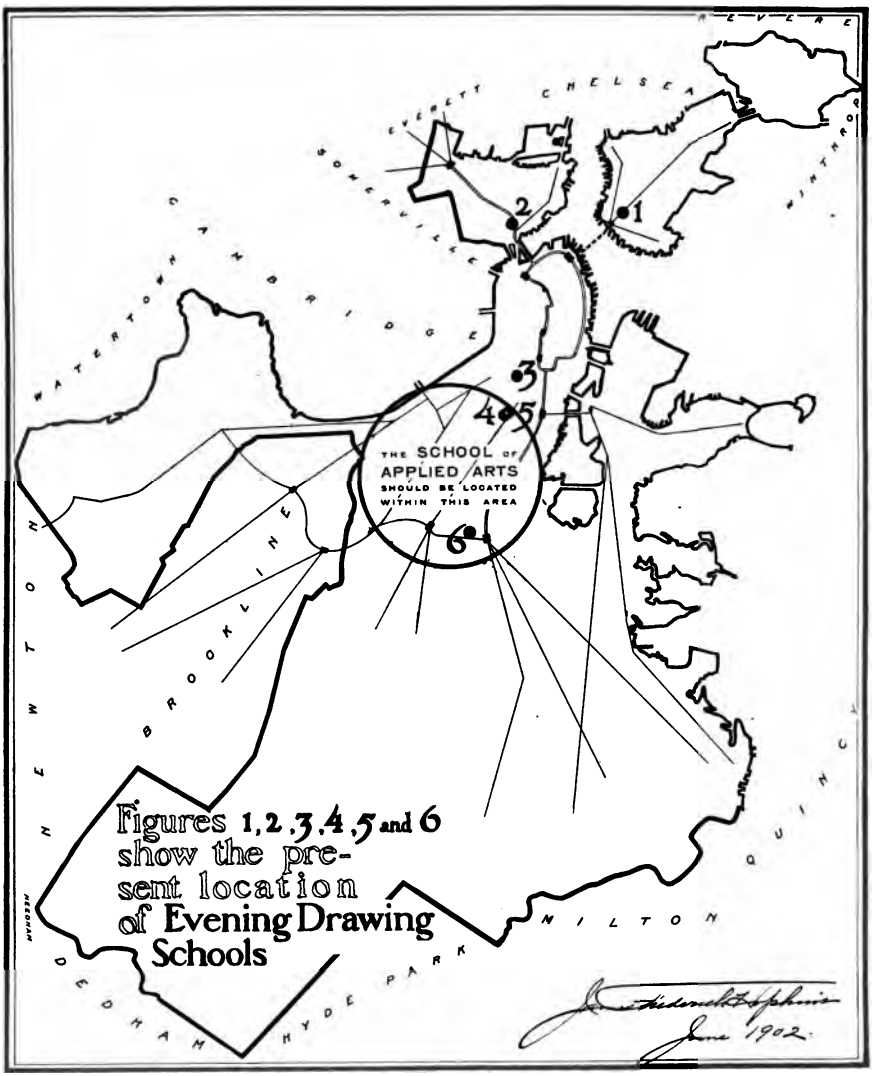
(*c*) Such a school will stand at the head of the industrial art instruction in the whole school system, as the Mechanic Arts High School now crowns the scheme of manual training.

(*d*) Its aim would be entirely different from that of a trade school.

(*e*) It could not interfere with the field of the Mechanic Arts High School, which is an "institution combining a good high school education with systematic training in the mechanic arts."

(*f*) Its province would be entirely different from that of the Massachusetts Normal Art School, the purpose of which "is to train teachers and supervisors of industrial art."

(*g*) Its purpose would be very different from that of the school attached to the Museum of Fine Arts, which is a private school, offering training in the higher and advanced fine and industrial arts to pupils of maturity and of a somewhat restricted class.



MAP OF BOSTON,

Showing the present location of the six Evening Drawing Schools, and suggesting the area in which a central school, housing at least four of these schools, could well be located. The various lines drawn upon the map show routes of transportation.

The field of such a free School of Applied Arts would be all its own. It would perform two duties in our educational system. First, it would offer to artisans employed in their trades during the daytime opportunities for advancement in their chosen craft by the increment of applied art training.* Second, it would take the son and daughter of the humblest as well as the most favored citizen and provide industrial art training in day classes, which in later chosen occupations would offer remunerative return in contrast to those poorly paid, overcrowded fields of unskilled labor into which, unfortunately, too many of our youth are now forced by circumstances over which they have no control.

---

* Acknowledgments of assistance in shaping this section of the Report are due to Mr. Frank K. Foster. Mr. Foster's skill as a practical workman, success as an employer, executive ability as an organizer, and broad knowledge gained from wide study, have made him an authority of national reputation on the point of view of the American artisan.

The writer would also acknowledge his appreciation of the assistance and encouragement received from Mr. George E. McNeil. Mr. McNeil is easily the dean of Massachusetts artisans, has celebrated the golden anniversary of his helpful association in the cause of labor, is the father of the evening industrial art education movement in the City of Cambridge, and his ripe experience has been of rare value in the preparation of this section of the Report.

J. F. H.

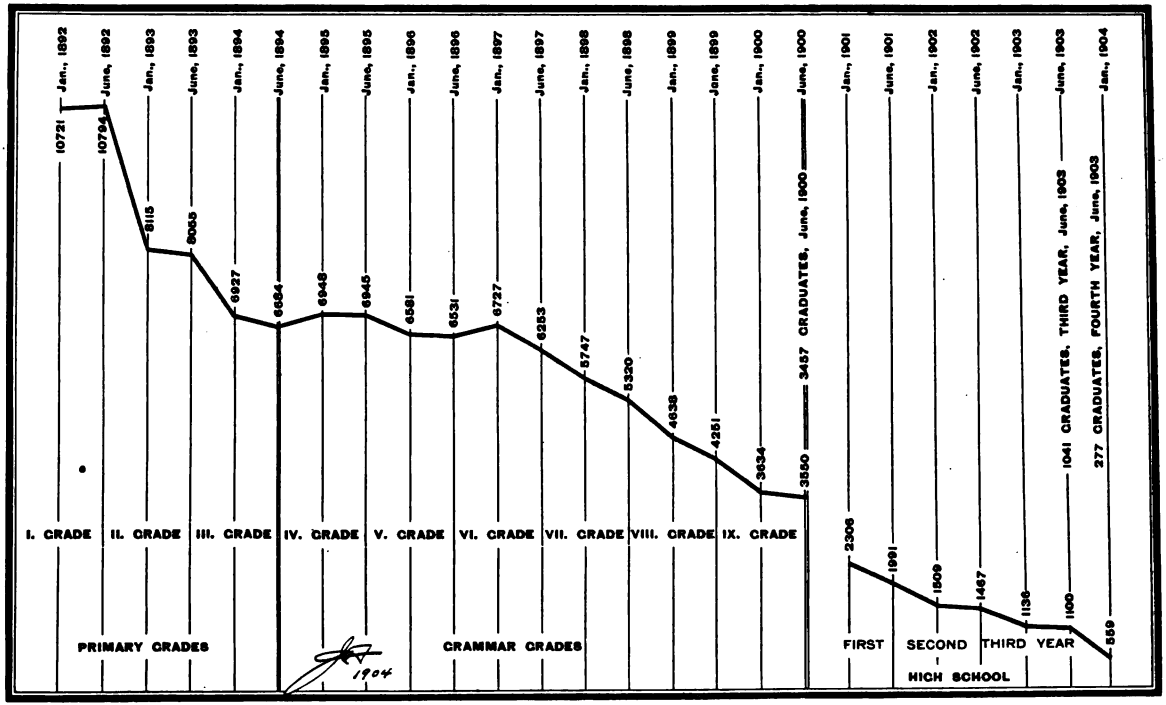


CHART SHOWING THE LOSS IN PUPILS IN A CLASS PASSING THROUGH ALL GRADES OF THE PUBLIC SCHOOLS.

VI. A STUDY OF DAY SCHOOL CONDITIONS.

(*a*) LOSS OF PUPILS AS A CLASS PASSES THROUGH ALL GRADES.

Hardly one per cent. of the entire school population ever attains to what we call higher education; only five per cent. to the grade of our high school; while much more than half leave on or before the completion of the fifth year of the elementary grade. The simple facts of the case are that in the great majority of human beings the distinctively intellectual interest is not dominant. They have the so-called practical impulse and disposition. In many of those in whom by nature intellectual interest is strong, social conditions prevent its adequate realization. Consequently by far the larger number of pupils leave school as soon as they have acquired the rudiments of learning — as soon as they have enough of the symbols of reading, writing, and calculation to be of practical use to them in getting a living. While our educational leaders are talking of culture, the development of personality, etc., as the end and aim of education, the great majority of those who pass under the tuition of the school regard it only as a narrowly practical tool with which to get bread and butter enough to eke out a restricted life. If we were to conceive our educational end and aim in a less exclusive way, if we were to introduce into educational processes the activities which do appeal to those whose dominant interest is to do and to make, we should find that the hold of the school upon its members would be more vital, more prolonged. [John Dewey in "The School and Society," p. 42.]

The chart upon the opposite page tells graphically how far our Boston conditions compare with the averages stated by this well-known western educator. The chart was plotted to show the loss in attendance during the progress of a body of pupils who might have entered the First Grade of

our Boston Primary Schools in 1892 and graduated at the end of a three years' course in the High Schools in 1903. The figures, which were taken from the records of the School Committee, show most clearly the loss in attendance which here takes place after January, 1897, when in the Sixth Grade many pupils reach the age when they were allowed to enter industrial life.

Comparison of the figures for the First, Second, and Third Grades develops wide differences, which cause curious drops in our plotted curve. The apparently heavy losses between these grades were due to conditions which occur in every school district. Circumstances of organization, such as insufficient accommodations, backwardness of pupils in studies, influence of foreign immigration, etc., doubtless caused a certain percentage of pupils to remain in the same grade more than a year. Such pupils must of necessity be counted twice in any school census. Our figures for these grades therefore should be studied with conservatism, for certainly no such shrinkages could actually occur.

There is nothing theoretical, however, in the appalling losses which occur during the Sixth Grade and after. There are many cases undoubtedly in this city where parents are forced to put their children to work as early as possible, but one cannot believe that the number of such families is sufficiently large to account for this shrinkage. Again, we know that the enlightened sentiment of organized labor throughout the country is against child labor, at least before the age of sixteen. Therefore we can only come back to the position of Dr. Dewey that "in the great majority . . . the distinctively intellectual interest is not dominant," and consequently "if we were to introduce into educational processes the activities which do appeal . . . we should find the hold of the school upon its members would be more vital, more prolonged."

raduating f

CHOOLS.		A
ls.	Total.	Boys.
..	.....	.....
..	.....	.....
	2	.....
	4	.....
	13	.....
	6	.....
..	.....	.....
	35	.....
..	.....	.....
	13	.....

(*b*) WHAT BECOMES OF OUR GRAMMAR AND HIGH SCHOOL GRADUATES.

In continuing this inquiry into the conditions of our day schools the question, "What Becomes of Our Graduates?" next naturally presented itself.

To obtain any adequate information upon this point seemed at first a serious problem, but like many another difficulty it has been successfully solved by the help of the Principals of our schools. In January, 1904, a circular letter was sent to each Principal, enclosing a list of the graduates of June, 1903. We asked their coöperation in making returns concerning their former pupils, under the heads of number of students, — In Fourth Year High School Classes; in Scientific Schools; in Normal Schools; in Art Schools; in High Schools; in Business Schools; at Home; in Stores; in Office Work; in Manufacturing; Otherwise Employed, and Not Recorded. To this list the returns added two other heads, — Removed from the City, and Married.

These returns have now been tabulated, and are inserted at this point.

In this connection we would like to place on record the facts that these circular letters were posted on a Saturday afternoon. In Monday afternoon's mail delivery the first reply was received, with every graduate accounted for, and within a week a majority of the districts had responded. When it is realized that this promptness meant that practically every Principal must have had nearly complete returns under his hand, it speaks volumes not alone for their interest in their former pupils, but for the very business-like way in which they must keep their office records. In this connection, also, it may be well to quote from a

letter received with the first return, as it gives further insight into the story of one school as recorded in the Principal's office:

In returning a report on the last graduating class, allow me to remark that the record of every graduate of this school has been carefully kept.

This record is a matter of the greatest importance in the eyes of our graduates. They report to us, that the record may be kept up, and all who visit us are free to examine the books, and to add any fact about themselves.

We do not undertake to criticise the record, but treat every pupil as though his record entitled him to respect, and the result is a very high degree of confidenee on the part of the pupils.

I enclose a record sheet used during the course. These sheets, in bound volumes, preserve every pupil's history. This is also a matter of great interest to the pupils, as any question arising can be instantly settled on authority.

It is an error to suppose that the men of to-day look upon the pranks of boyhood as crimes, or that they shrink from encountering a poor school record. My experience, now a long one, shows quite the opposite, and that men rather rejoice at evidence of the gains they have made than blush at early faults.

(*c*) WHERE THOSE TAKING WORK CERTIFICATES SEEK EMPLOYMENT.

The chart on page 64 told a story of losses in school attendance which could only be accounted for by the call of the industrial and commercial world upon our young people. The tables inserted opposite page 67 told a most interesting story of youthful attainment and energy, but it did not tell us enough about the employment of Boston's youth in the great industrial world, so a third investigation was undertaken, under the above heading, which we are free to confess was not an easy one.

Every boy and girl seeking employment within the limits

School-home, Sex, Birthplace, and

ON.		MASSACHUSETTS.			OTHE	
ls.	Total.	Boys.	Girls.	Total.	Boys.	G
..	2	.....	.....	.....	1	..
..	.....	.....	.....	.....	.....	..

of the State has to prove that he or she is over fourteen years of age. This is done in Boston by securing a certificate from the office of the Superintendent of Schools stating and certifying to the fact that this legal age has been reached. In issuing these certificates the information furnished by the parents or legal representative of the child is placed on file. From these records it is possible to ascertain the name and sex of the child, the age, the nationality, the school last attended, and what place of employment in the city the young worker is seeking.

Over twenty-eight hundred children applied for these certificates during the year ending with the last of June, 1904. In order to continue this story of what becomes of our graduates, the records for the year commencing July 1, 1903, and ending June 30, 1904, were carefully checked and the results tabulated in the chart inserted opposite this page.

This chart tells an interesting story, and one which would doubtless be practically duplicated if the records of any recent year were similarly treated. In reading this chart in connection with the information upon pages 64–68, one should be careful to remember that the information tabulated does not necessarily continue the story of the "Occupations" charted opposite page 67. The reason of this will be readily seen when it is stated that comparatively few of these pupils were graduates of grammar schools, but rather represented a group of those who were leaving school without even a grammar school diploma — a group similar to those which caused, on the chart printed on page 64, the steady drop in the curve of attendance from January, 1897, on to the graduating year.

SKETCH MAP OF GREAT BRITAIN SHOWING LOCATION OF INDUSTRIAL ART SCHOOLS AND CLASSES.

This map was compiled from three different Reports of the Board of Education (of Great Britain) for 1901-02 and 1902. It shows (*a*) the Location of Cities and Towns maintaining Schools of Industrial Art under the Administration of the Board of Education. (These are printed in capital letters.) (*b*) Cities and Towns maintaining Schools of Industrial Art, Art classes, and local study centres aided by the loan of photographs, books, or art examples from the Victoria and Albert Museum at South Kensington, London, during the year 1901-02, and (*c*) the Cities and Towns maintaining Industrial Art Schools or Art classes winning Awards in the National Competition of 1902. (Shown by the black circles.) The numerous Schools of Art in the great cities could not of course appear upon this map. Birmingham, for instance, had fifteen centres thus omitted. London had forty-one centres which could not be shown, etc., etc.

The map of Massachusetts is drawn to approximate scale as an interesting comparison.

VII. WHAT GREAT BRITAIN HAS DONE FOR INDUSTRIAL ART EDUCATION.

(*a*) ESTABLISHMENT OF INDUSTRIAL ART SCHOOLS.

In 1835, upon motion of Mr. William Ewart, Member of Parliament for Liverpool, a Select Committee of the House of Commons was appointed "to inquire into the best means of extending a knowledge of the arts and the principles of design among the people (especially the manufacturing population) of the country." This Committee, which was reappointed at the next session, reported in 1836 that the best means of obtaining industrial art training was by the establishment of schools of design. In accordance with this recommendation an appropriation was granted for a Normal School of Design, with a museum, and provision for courses of lectures. In June, 1837, this Normal School of Design opened in Somerset House, London, in rooms formerly occupied by the Royal Academy. Thus at an early year, and in a positive though at first humble way, Great Britain laid the foundation of that magnificent scheme for art industrial training which has to-day dotted the map of the kingdom with over three hundred art schools and classes.

In 1841 the government decided to assist in the formation and maintenance of Schools of Design in the manufacturing districts, giving an annual grant of money for the training and payment of teachers, for the purchase of casts, and the accumulation of collections for the use of these schools. In the following year the Council controlling these schools was reorganized and its membership increased, while the annual grants of Parliament had so increased that in

1851–52 the amount reached the equivalent of over $60,000, divided among schools in such centres of industry as Manchester, Birmingham, Glasgow, Leeds, and Paisley. As these sums received from the government were increased by local appropriations, tuitions, etc., it is quite likely that in that year more than the equivalent of $150,000 was spent for industrial art education.

In the speech from the throne at the opening of Parliament in 1852, Queen Victoria stated "that the advancement of the fine arts and of practical science will be readily recognized by you as worthy of the attention of a great and enlightened nation. I have directed that a comprehensive scheme shall be laid before you, having in view the promotion of these objects, toward which I invite your aid and coöperation." In the following year (1853) the scope of the department was consequently enlarged, and the Department of Science and Art was created. In 1856 the Education Department came into being, and these industrial educational efforts, hitherto under the direction of the Board of Trade, were transferred to the new department.

In these days when the interests of all concerned are turning toward industrial education it is interesting to read the original purpose of the Department of Practical Art as it was organized in 1852. In its first report, the objects were stated to be two in number, both equally important in the development of the industrial preëminence of a nation. (1) General elementary instruction in art, as a branch of national education among all classes of the community, with the view of laying the foundation for correct judgment, both in the consumer and the producer of manufactures. (2) Advanced instruction in art with the view of its special cultivation, together with the application of the principles of technical art to the improvement of manufactures; also the establishment of museums, by which all classes might be induced to investigate those common principles of taste which may be traced in the works of excellence of all ages.

The Department of Science and Art with its schools and classes was removed in 1852 from Somerset House to Marlborough House, and in 1857 the office of the Department and the National Art Training School (now the Royal College of

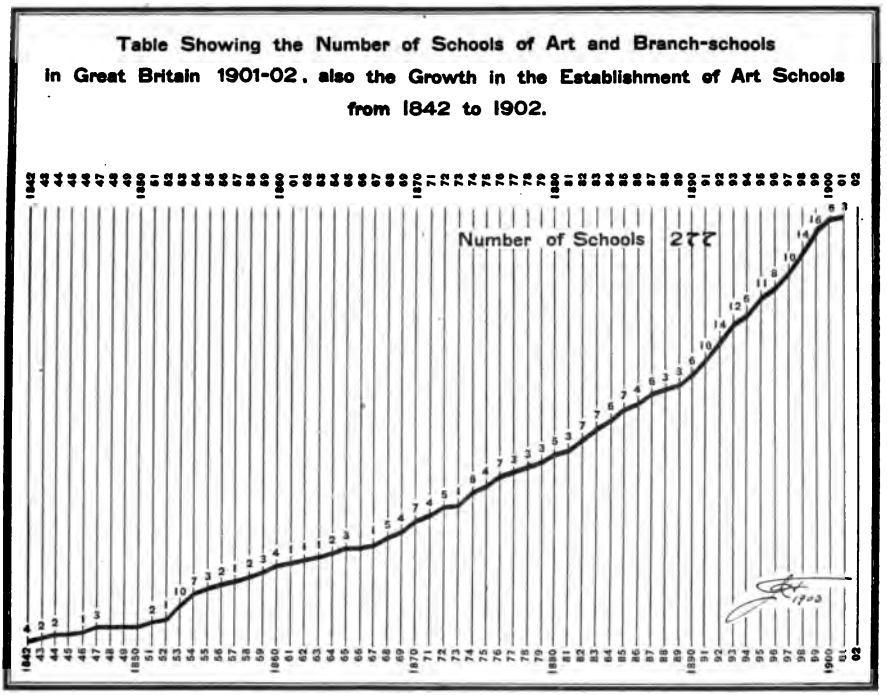


Table Showing the Number of Schools of Art and Branch-schools in Great Britain 1901-02. also the Growth in the Establishment of Art Schools from 1842 to 1902.
Number of Schools 277

This Diagram was compiled from a Report of the Board of Education (of Great Britain) for 1901-02, entitled "Lists of Schools under the Administration of the Board," pp. 519-524.

Art) were removed from Marlborough House to South Kensington. There were at this date (1857) nearly 13,000 students in local schools of art, almost 400 in the National Art Training School, and in addition to these nearly 44,000 elementary pupils were taught in their various schools. The number of pupils studying throughout the nation had more than doubled in four years.

In this year also (1857) the regular inspection of art schools was organized, so that once a year each school was

visited by an inspector, who awarded local prizes, consisting of medals, books, etc., and selected the best of the students' works to be sent to London for the National Competition, in which 100 "National Medallions" and prizes were awarded.

In order to foster the erection of art schools, the Education Department in 1863 arranged for "Building Grants" for Schools of Art. This encouraged the local appropriation of funds for this purpose, and was a movement of wide influence in promoting industrial art education among the people. Further aid from the Central Education Department came in payments of £10 on each certificate of qualification held by the local teacher; grants for the purchase of casts and examples for study; and also the prize awards in the "National Competition." The scheme for payment upon teachers' certificates was abolished in 1863, and payments were next made upon the result secured. This has recently and very sensibly (1896) again been modified, and the grants are now made, not upon the teachers' attainments, or the pupils' results, but upon the more equitable basis of attendance of pupils. In 1863 there was also established the "National Scholarships," enabling advanced students who intended to become designers or manufacturers' draughtsmen to continue their studies at the Art Training School and Museum at South Kensington. In the year 1897 the total amount of the national grants had reached an amount equal to more than $1,300,000.

"Now, in every English city one finds a school of art. Thus has arisen that splendid system of art instruction in the cities, by technical schools, and by art schools, that must be the admiration of every student of the municipal art of to-day in England — that system that is giving to art a popular dignity, unusual in these times, showing it as a necessity, not a luxury, erecting noble buildings for its purpose, and splendidly equipping them; instructing tens of thousands of young people in its principles, and so developing talent and raising the art taste and standard."

(*b*) WIDE INFLUENCE OF THE "SOUTH KENSINGTON" ORGANIZATION.

The following notes are by Capt. Percy Atkin, British Representative for Education at the Louisiana Purchase Exposition, St. Louis, 1904, whom I had the pleasure of inviting to speak before the Department of Art Education at the annual convention of the National Educational Association at St. Louis, June 27–July 1, 1904:

Our national organization for art education, although not faultless, has proved a useful experiment for other countries, and its working and results have been carefully inquired into by successive foreign commissioners in view of similar organizations being set up in their own countries. It began its work when industrial art was dead in England, and even in 1851 industrial art had scarcely begun to revive, for the illustrated catalogue of the great exhibition of that year, which gave illustrations of the best art work exhibited, compares very unfavorably in contrast to the art work of to-day as shown in the annual report of the National Competition.

The organization had to create the instruments by whom the work was to be done, to send them to centres where no standard of art existed, and where the seed sown was often hindered in its growth as much by the mistakes of the few who, while anxious for the cultivation, did not possess sufficient knowledge to give it wise nurture, as by the apathy of local magnates or the opposition of vested interests. . . . . .

The art work of the London Polytechnics ranges from the elementary drawing, which every technical student is urged to learn, up to the highest developments of fine art and design. Largely attended life classes, working from the costume-model and from the nude, classes in wood-carving, modeling, art needlework and metal-work attract in the aggregate more than thirty thousand students, day and evening. The Polytechnics are providing more than one-third of the art teaching of London. In the national art competition several of them usually stand at the very top of the list of successful art schools. The works of their

students now appear in the Royal Academy exhibition alongside your Sargent and Abbey, and still more numerously in the arts and crafts exhibitions in London. . . . . .

In Great Britain we are at the beginning of a great improvement in regard to schools of art. In some places it is now realized that the school of art has functions and branches of study, which are necessary in these stressful days, which differ greatly from those of the early Victorian period when, by the energy and foresight of the late Prince Consort, schools of art were first established. Unless the craftsman is brought under good art influence, his work will have an inferiority in style and character that will prevent its reaching the highest value. Consequently it is gratifying to find that, in many of the schools, there is a general movement in the direction of strengthening the equipment necessary for efficient instruction.

*We spent £76,721 in 1902 on art education in England and Wales, being 13*s.* 10*d.* per student (110,852 students). Of these, 54,085 were in 232 schools of art, and 56,788 were in 2,123 art classes. We pay 19*s.* 4*d.* per student in art classes. We give ten royal exhibitions (scholarships) paying 25*s.* a week for forty weeks for two years; twenty local scholarships paying £20 a year for three years; five local scholarships of £50, of which the Board of Education provides £25; 467 free scholarships; 148 summer courses, with £3 allowance and return railway fare.

The national competition has been and is a powerful influence upon art instruction. It keeps up a condition of emulation and of wholesome rivalry between the various schools and classes, and causes the advanced students to put forth their utmost endeavors to distinguish themselves in the contest for medals and prizes. On the other hand, it may give rise to a dangerous tendency toward working in a set groove in various branches of work, *e.g.*, when a certain type of composition, such as in decorative design, has received the approval of the examiners. In the last national competition, 5,422 works were selected; to

* Capt. Atkin's figures are those given in the "Proceedings" of the N. E. A. It would seem as if he had been misquoted, for the grants for instruction in art reached £265,263 as far back as 1897. See Regulations of the Department of Science and Art, 1899, p. xxviii.

these 5 gold, 80 silver, and 212 bronze medals, and 442 book prizes were awarded. A selection from the accepted works was sent to Belfast, Edinburgh, Newcastle, and Salford for public exhibition.

The Council of Advice for Art appointed by the government has expressed the opinion that facilities should be given to students in schools of art to carry out, or to see carried out, some of their own designs in the material for which they were designed, as this would show whether or not they were suitable. The council felt that nothing but harm could come from encouraging students to make designs, on paper or in plaster, without any knowledge of their suitability for execution in the material employed. The regulations have now been altered so that practice by students in design classes of craft methods for executing work in actual materials is recognized as a constituent part of a student's art training.

One of our educational writers has aptly termed the Victoria and Albert Museum at South Kensington, London, the "power-house of British art-educational progress." How true this is can be shown by one of the many illustrations which have come under my personal observation.

The little thatched village of Winsted lies down in the west country of Devon. To it the South Kensington authorities (in 1903) sent a choice, but not extensive, collection of textiles, laces, and other similar art products. They were on view before the students of that little art class, maintained under the picturesque roof of one of those tiny cottages. In the fall, in London, at the exhibition of students' work held annually in the Metropolis, the judges, representing some of the best minds of England, gave one of the highest awards to a girl student working quietly, but so earnestly, in the same little provincial Winsted. Truly the great Victoria and Albert Museum which the late Queen and the Prince Consort so successfully established casts its bread upon the waters, and it comes back after many days.

THE MUNICIPAL SCHOOL OF ART, MANCHESTER, ENGLAND.

In addition to this portion of the School fronting on Cavendish street, the building extends as far in the rear, where class-rooms and the museum collections are located.

Photographed and reproduced for this Report by the Evening Drawing School Teachers' Association.

*HALL OF ANTIQUE CASTS.
Municipal School of Art, Manchester, England.

(c) WHAT MANCHESTER, ENGLAND, DOES FOR INDUSTRIAL EDUCATION.

One of the best illustrations of what the English cities are doing for industrial art education is offered by the city of Manchester in her Municipal School of Art and in the Municipal School of Technology.

The object of the School of Art is to give a thoroughly practical knowledge of designing, drawing, painting, and modeling in the application to the various processes of manufacture and industry and to architecture. The school provides, therefore, carefully graded courses of instruction, furnishing elementary training to those without previous knowledge of art; and more complete and technical courses for designers and craftsmen, as well as those who desire to pursue design as applied in more graphic and pictorial fields. The school

* Acknowledgments are due the members of our Evening Drawing School Teachers' Association for their coöperation in the preparation of this Report. These photographs were made in Manchester at the order of this Association, and have been reproduced here at the Association's expense.

WHERE THE FLORAL STUDIES ARE KEPT GREEN AND FRESH.

CLASS IN DESIGN MAKING FLORAL STUDIES, DURING THE MID-WINTER TERM.

Municipal School of Art, Manchester, England.

Photographed and Reproduced for this Report by the Evening Drawing School Teachers' Association.

also aims to assist those who desire to make a knowledge of art a part of their general education, and trains as well those persons who intend to adopt art as a profession, or to include it in their general qualifications as teachers in elementary or other schools.

The course in design leads the school in importance, and

PAINTING CLASS WORKING FROM THE FIGURE.
Municipal School of Art, Manchester, England.
Photographed and Reproduced for this Report by the Evening Drawing School Teachers' Association.

consists of most comprehensive details leading to applied design in problems of the arts and crafts. The entering student undertakes a course in elementary design and color leading to advanced designs for printed and woven fabrics, embroidery, decorative painting, leaded glass, pottery and metal work. Figure drawing from the head, draped figure, and the nude is successfully carried on, leading to the use of the figure in decoration and composition. Drawing and

painting of flowers and foliage is taught in this course under conditions far different from those of our American art schools. On the roof in a sheltered angle of the gable is a most complete conservatory where purchases made in the city flower market are brought into condition for the best use in the class-room downstairs. Lectures are given upon color, upon the technique and processes of design, upon ornament and its principles, and upon the history of the

THE MODELING ROOM.
Municipal School of Art, Manchester, England.
Photographed and Reproduced for this Report by the Evening Drawing School Teachers' Association.

various schools of ornament. The course constantly emphasizes the study of fine examples of ancient and modern craftsmanship and the production by the students of their work in definite materials.

The classes in modeling are also most interesting. Pupils

work from the cast, from the flowers and fruit of the conservatory, from the living model, from the head, draped figure, and the nude. Lectures and observations in the museum of this school are also a part of this course. The work laid out for the painting classes and for the students of architecture is none the less comprehensive and valuable. An important adjunct to this school is its outdoor gymnasium, to which every student is expected to repair on at least one afternoon a week.

ADVANCED CLASS IN ARCHITECTURE.
Municipal School of Art, Manchester, England.

Photographed and Reproduced for this Report by the Evening Drawing School Teachers' Association.

The museum of this school is its joy and pride. This wing was erected with the proceeds of something over $50,000 derived from the profits of the Manchester Royal Jubilee Exhibition in 1887. It comprises three large rooms known as the Textile Court, the Italian Court, and the Gothic Court. In addition there is an East and a West Corridor. All of these rooms are equipped with characteristic objects of rare artistic skill and handicraft, either in originals or in fine

INTERIOR OF ONE OF THE MUSEUM COURTS,

Municipal School of Art, Manchester, England.

Photographed and Reproduced for this Report by the Evening Drawing School Teachers' Association.

reproductions. The whole of this interesting collection is at the service of the pupils for their daily study and inspection, and forms a library of applied art such as is not available in the same way or to the same extent by any other provincial school.

We noted in the entrance corridor reproductions of Della Robbia ware, examples in leaded glass, and fine pieces of modern metal work. The pride of the Textile Court is the noble tapestry of the "Adoration of the Magi," designed by Sir E. Burne-Jones, and executed by William Morris. There is also here a most interesting collection of original drawings and cartoons by noted English artists and decorators. Persian carpets, Eastern rugs, and a fine collection of textiles are constantly on view. The best examples of modern craftsmanship (some by graduates of the school) in silver, jewelry, pottery, glass, leather, and metal are also here displayed, while in special cases are the circulating collections on tour from South Kensington. The Italian Court is filled with reproductions of fine southern examples, while in the Gothic Court are exhibited some of the best examples of artistic craftsmanship of the north. China, Japan, and India have representative places in the corridors.

There is an extensive library and reading-room, an athletic field, with its governing society of the Athletic Union, a musical and literary society, and various sketch clubs and social organizations. Annual courses of lectures to students and the public are also maintained.

The Municipal School of Technology represents a financial value to the City of Manchester of over $1,500,000, and its educational value to the industries of South Lancashire is beyond computation. The object of this school "is to provide instruction and training in the principles of science in their application to the Industrial Arts, with a view to a right understanding of the foundations upon which these arts rest, and to promote their efficient development."

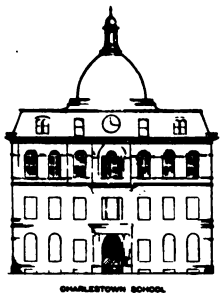
THE MUNICIPAL SCHOOL OF TECHNOLOGY, MANCHESTER, ENGLAND.

Reproduced for this Report by the Evening Drawing School Teachers' Association.

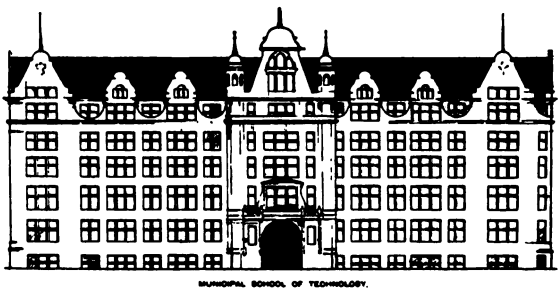
The structure in which the school is housed occupies an oblong plot of land containing 6,400 square yards, and rises six stories in height. The corridors on each floor are lighted by a spacious court, while the class-rooms receive light and air from the surrounding streets.

The building is ideally arranged for its work. A hall of 4,000 square feet is available for lectures on the main floor, while the class-rooms, laboratories, and studios rise in most complete arrangement. In addition to the more scientific courses we find provision for subjects of applied art and the arts and crafts. For instance, there are courses in architecture and architectural drawing fitting students for draughtsmen; photographic and photo-engraving classes; printers' and bookbinders' classes in design; artistic wood-working and metal-work, house painting, decorating, and designing for interiors; classes in drawing for lithographers; and one great hall for spinning and weaving, with the attendant courses in dyeing. A library, reading-rooms, social rooms, and a restaurant complete this ideal plant maintained for the workers and students of Manchester.

This building is perhaps the greatest fruit of its kind, the greatest fruit of this kind of municipal enterprise in this country. . . . . Nobody can go over this building, observe its equipment, study even in the most cursory manner the care which has been devoted to it, without feeling that the corporation of this great city has set a great example worthy of the place they hold in Lancashire, worthy of the place they hold in Great Britain. . . . . This great building in which we are assembled is an outward and visible sign of that awakening which has come over our people in view of the ever-changing conditions of international industry. [Hon. Arthur James Balfour, M.P., Prime Minister of Great Britain, at the opening of the Municipal School of Technology, Manchester, England.



CHARLESTOWN SCHOOL



MUNICIPAL SCHOOL OF TECHNOLOGY, MANCHESTER, ENGLAND

ROXBURY SCHOOL

COLUMBUS AVENUE SCHOOL

MUNICIPAL SCHOOL OF ART MANCHESTER, ENGLAND

WARREN AVENUE SCHOOL SCHOOL OF DESIGN

COMPARISON OF FLOOR SPACE

MANCHESTER

BOSTON

MANCHESTER

APPROPRIATION

$188,994

TUITION

$25,502

BOSTON

APPROPRIATION

$23,646

EAST BOSTON SCHOOL

POPULATION (1902)
560892

POPULATION (1900)
543872

(*d*) INTERESTING COMPARISONS WITH BOSTON'S EXPENDITURES.

The graphic comparisons between the City of Manchester, England, and our own home city, shown upon the opposite page, have been prepared after considerable research.

The areas of the two cities are fairly equal. Manchester is compact, while Boston is indented by the harbor, and shows outlying masses partially detached from the main body. Some seventeen thousand more people resided in Boston than in Manchester on the dates reported, which are sufficiently close to admit of comparison. * We maintain six evening drawing schools in indifferent quarters for our artisan workers (shown by the blackened windows and by spots on the Boston map), and we practically offer no such special instruction for day pupils. Manchester opens her Municipal School of Art and magnificent $1,500,000 Municipal School of Technology (shown by the façades to scale and by circle and cross on the Manchester map) for both day and evening pupils, providing over nine times the combined floor areas of our class-rooms. Tuition is charged in Manchester, amounting to over twenty-five thousand dollars annually; our schools are free. Materials are purchased there by the students; we provide everything here.

Manchester spends annually an amount for industrial education equal to over one hundred and eighty-eight thousand five hundred dollars, while Boston spends only about one-eighth as much.

---

* Acknowledgment is due to Mr. Felix A. Gendrot, a teacher in our Evening Drawing Schools, for drawing to scale the façades of the two Manchester buildings and the five buildings used by our Evening Drawing Schools.

FROM THE CLASS IN SPINNING AND WEAVING.

VIII. DOES APPLIED ARTS TRAINING PAY?

(*a*) EXPERIMENTS IN DAY AND EVENING CLASS-ROOMS.

The success of Great Britain in carrying her industrial art instruction beyond the stage of the drawing board and out into the fields of arts and crafts has been very marked in the last decade. The necessity of such extension of our work was foreshadowed in the Superintendent's Report of 1898, where we find the following suggestive notes:

The time may not be far off when industrial conditions in this country will compel our people to pay more attention to

WEAVING PATTERNS ON SMALL HAND LOOMS.

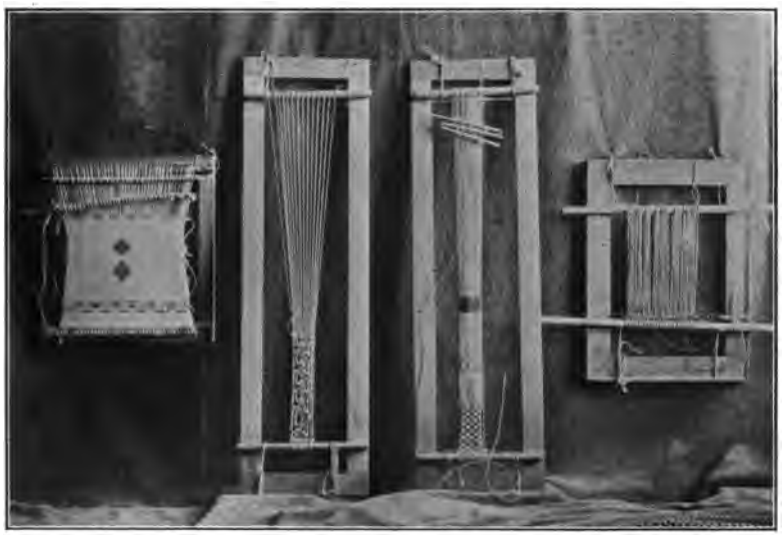
industrial education. Then we may expect to see our evening drawing schools enlarged and multiplied, and similar schools added for teaching various other applications of science and art to industry. . . . . When this branch (drawing) was introduced into our schools, and made obligatory by statute, the plea was that drawing was an important part of industrial education, and industrial education was needed by the people, especially the people in the cities. But abundant experience may be cited to show that industrial education through drawing alone is work only half done. The other half—modeling, carving, joining, turning, forging, casting, weaving, or any other process by which material is shaped in accordance with a preconceived design represented by drawing has hitherto been wanting in our schools. Unless this element of construction is added, our drawing will still fail to yield the full measure of good results expected of it.

As far as it has been possible to do so we have carried on definite experiments with the material at our command to see in what directions extension was practical and possible. For instance, in response to an urgent request from many

WEAVING A PILLOW COVER ON TWENTY-NINE-INCH HAND LOOM.

students we gathered a collection of spinning wheels and other old-time implements of New England home industry, put them in condition for use, and planned a series of experimental lessons, which proved of much value to all who attended. The results of this class are to be seen to-day in several departments of our educational work. This led to

experiments upon * modern hand-looms, which were equally helpful in introducing methods of weaving to teachers and pupils. This work in spinning and weaving received much favorable comment on the part of visitors to our Boston exhibit at the Louisiana Purchase Exposition.



HIGH SCHOOL WEAVING EXPERIMENTS.
Reproduced for this Report by the Evening Drawing School Teachers' Association.

The field, however, in which all members of this Department take just pride is the extension of the work in arts and craft into high schools. Three seasons ago, upon the direction of the Superintendent, we undertook certain experiments within the time allotted to Drawing to carry the designs made by the pupils into material. This broadening of the work met with a ready response from both teachers and pupils, and opened a field which should also be provided for by the extension of our Evening Drawing Schools.

* Acknowledgments are due to the Copeland Loom Company, Waltham, Mass., for the loan of small hand-looms and a larger hand-loom to this experimental class.

The aim of this work is to give the pupil a better appreciation of the use and value of design, to enable him to better understand the relation of design to material, and to develop skill of hand. Incidentally, in the face of purchase offers which have been made to our students, it might suggest a very remunerative field for life occupations.

HIGH SCHOOL WOOD CARVING.

Reproduced for this Report by the Evening Drawing School Teachers' Association.

The courses which have been carried out, while wholly experimental, have been most successful. Work has been provided for students of our three years' high school courses.

That for the first year offers opportunities for the application of design in stencil-work, to pillows, table-mats, hangings, etc., in the materials of linen, denim, burlap, and silk. Metal work is undertaken in designs which may be applied to perforated sheet metal, such as lamp and candle shades of sheet brass, or to sawed metal in such examples as card-trays, spoons, paper-knives, belt-buckles, pendants, blotter-corners, and similar projects in sheet copper or silver. Stamped leather work in belts, card-cases, or table-mats has also been successfully accomplished in these experimental courses. Weaving on hand-loom frames, with two threads and reversible patterns, has developed strips for trimmings,

collars, and cuffs, etc., from linen thread, mercerized cotton, and wool.

The second year's work advances somewhat, offering shaping and enameling in metal, in brooches, hat-pins, belt-buckles, pendants, paper-knives, trays, spoons, etc., in silver, copper, and enamel. The work in tooled leather has produced

A HIGH SCHOOL COURSE IN METAL WORK.

Reproduced for this Report by the Evening Drawing School Teachers' Association.

pen-wipers, folios, card-cases, belts, and music-rolls, in cow-hide and calfskin. Wood-carving has had its interested students, producing frames, pen-trays, blotter-tops, book-racks, etc.

The third-year pupils have carried the work along lines of more advanced technique, thus proving that the arts and crafts spirit is decidedly educational in its character. The work in metals in this grade provides for carved work, repoussé, and enamel, producing trays, bowls, jewelry, etc.

The examples of tooled leather have been folios, magazine and book covers, table-mats, cushions, etc. Wood-carving, pyrography and stained wood have produced trays, shelves,

SPOONS, PINS, AND BELT BUCKLE.

BELT BUCKLES, PINS AND PENDANT.

Metal and Enamel Work by Roxbury (Boston) High School Pupils.

Reproduced for this Report by the Evening
Drawing School Teachers' Association.

racks and cabinets, inkstands and simple furniture. In certain classes designs for fans, both flat and folded, have been attempted. Leaded glass has been studied, and while actual glass has not been cut in our schools, as has been done in other cities, we have produced pleasing compositions by painting ground glass and working in color upon vellum.

HIGH SCHOOL WORK IN LEATHER.

Reproduced for this Report by the Evening Drawing School Teachers' Association.

All of this work has been going on quietly, yet most successfully, under ordinary class-room conditions, by means of materials furnished by the students; with simple tools, and with the equipment of blow-pipes and heating furnaces which our chemical laboratories supplied. If such results as are pictured upon these pages can be produced under these conditions, what could we not accomplish under proper housing and with adequate equipment!

APPLIED ART IN CLAY.

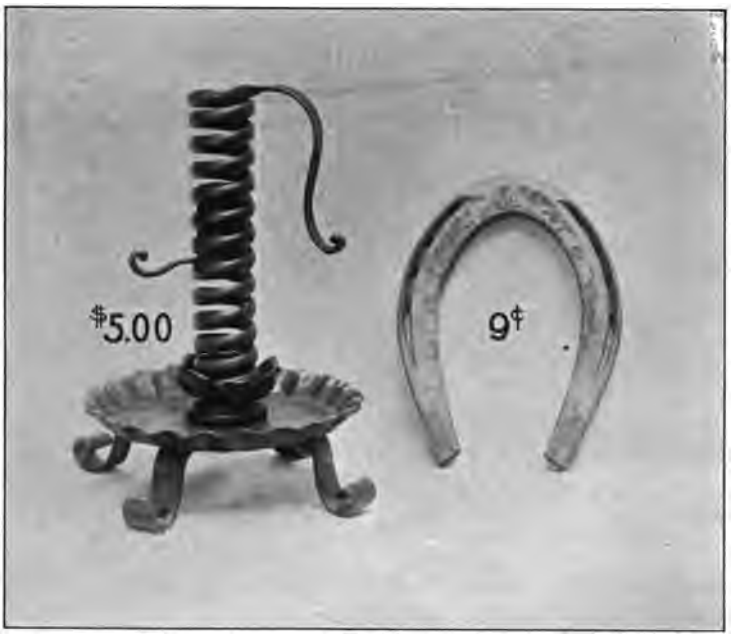
(*b*) SHALL WE MAKE CHEAP POTTERY OR ART PRODUCTS OF THE KILN?

The increase in value of raw material when worked into the industrial art product is something wonderful to contemplate. Mr. Lucius Tuttle said, *"we produce nothing but clay for bricks, cement, timber, and brainy men." This illustration aims to show what may be accomplished with that "clay" in the hands of "brainy men" with industrial art training. The clay was a six-pound lump; it was worth twelve cents, consequently it was not the cheapest of clays. It could be made into a utilitarian bean-pot, and sell in the open market for thirty cents. †Made into the vase, however, that twelve-cent material, plus applied art, is fashioned into a thing of beauty and raised to twenty-five dollars in value.

---

*See back of the Title Page.

†Acknowledgment is due the Grueby Faience Company (kilns at South Boston) for the loan of the beautiful vase which was used for this photograph.



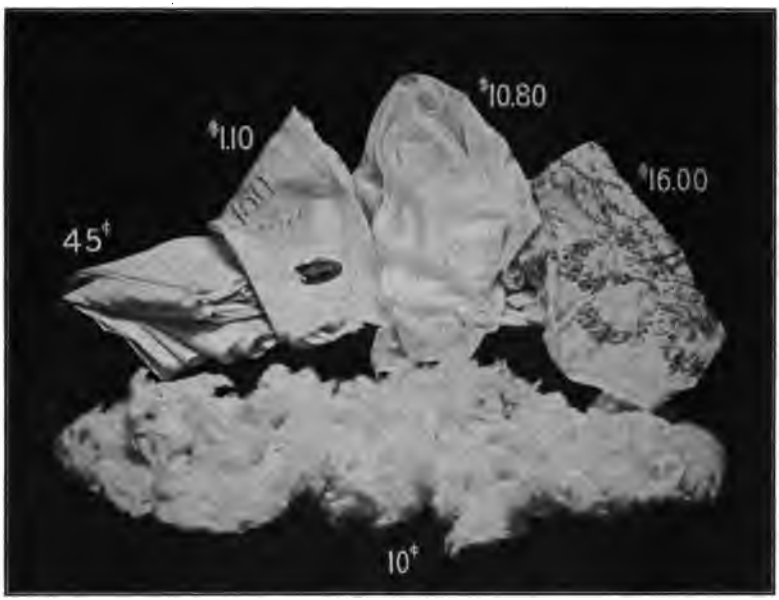
APPLIED ART IN WROUGHT IRON.

(e) CONTRASTS IN THE INCREMENT OF VALUE IN WROUGHT IRON.

A similar increment in value due to the application of applied art knowledge is shown in the illustrated comparison of the horseshoe and the wrought-iron candlestick. It was a two-pound horseshoe, and such shoes can be bought by the keg for four dollars and a half a hundred weight. Incidentally the iron it contained was worth six cents. Mr. Frederick Krasser (100 Utica street, Boston) took a smaller quantity of iron for his interesting * wrought-iron candlestick, and it was his cunning hand, directed by artistic appreciation, which gave us five dollars worth of grace and beauty.

Those who have noted the possibilities in wrought iron as shown in the collections of our Museum of Fine Arts will readily see larger returns from such handicraft.

* Acknowledgment is due the Society of Arts and Crafts for the loan of this piece of wrought iron from their interesting Park-street salesroom, when this Report was going through the press.



APPLIED ART IN COTTON TEXTILES.

(*d*) THE SOUTHERN WEAVER, THE SKILLED NEW ENGLAND WEAVER, THE PRODUCER OF THE ART PRODUCT.

We hear a great deal in these days about the competition of southern mills with our long-establishsd plants of New England. The dangers of competition would indeed be great if it were not for the superior skill of our New England workers. Here again the brainy men and women of Mr. Lucius Tuttle's statement come to the front. Yet New England's cotton industry is possible of further advance by the increment of value of an applied art product as illustrated in the photograph of *raw cotton and various †fabrics which might have been prepared from it.

---

* Acknowledgment is due Mr. Francis L. Coolidge, a former member of the School Committee and the Committee on Drawing, for aid in preparing this illustration.

† Acknowledgment is also due to R. H. Stearns & Co. for the loan of the samples photographed.

The price of cotton has fluctuated decidedly in the last two years. Suppose, for the sake of the argument, that the pound of raw cotton in the illustration represented ten cents in value, and it was of a staple from which all the fabrics could have been woven. Again, let us assume there is no waste in the cotton and no finishing sizing in the cloth, or that the waste of the one is balanced by the added weight of the other. It should also be noted that the cheapest cloth here shown is a cloth of excellent quality. (Three or four grades are quoted below this price.)

Then theoretically the ten-cent pound of cotton yields forty cents worth of plain cloth — one dollar and ten cents worth of a finer weave — and ten dollars worth of beautifully woven mull. This is increment indeed, but thus far it is the increment of the machine and the skilled laborer. Now introduce the designer, let him plan his pattern, choose his color scheme, and then print the mull of beautiful sheer weave, and the ten-cent pound of cotton counts for sixteen dollars worth of pleasing design. Thus does the taste of the designer add to the skill of the artisan tending improved machinery.

(*e*) THE HOPE OF NEW ENGLAND LIES IN TRAINING HER SKILLED LABORERS FOR ARTISTIC ARTISANSHIP.

New England, once the largest manufacturer of crude products, and the dominating influence in the industrial circles of the nation, now faces a serious situation. She is isolated by location from the mines of coal and iron, far removed from the great producing areas of cotton and wool, and dowered by nature with comparatively few raw materials. Her supremacy in the future, like her ascendency in the past, can only be dependent upon the superior skill, intelligence, and training of her industrious citizens. Yet New England faces on the one side the competition of the

duplications of her manufacturing plants throughout the nation; and on the other hand the possible removal of certain industries to the areas of abundant raw materials.

Aside from commerce, in which New England has unrivalled advantages, she can only excel in the development of higher classes of industrial products. Her skilled laborers are unrivalled throughout the country, but they must not be expected to compete with the low wages, the child labor, and the crude productions of newer industrial centres. The higher branches of industrial products are the legitimate field of the New England skilled workman; and these products are not the result of ingenious machinery alone, they are rather the creations of the skilful hand, the willing heart, and the artistic, practical brain. The hope of New England lies in training her skilled laborers for artistic artisanship.

IX. RECAPITULATIONS AND CONCLUSIONS.

(1) Boston has maintained for over thirty-four years a number of evening schools offering industrial art training for artisans in their trades, and for young men and women unable to attend other schools, to whom education in practical industrial art lines might otherwise have been denied.

In doing this the city annually expends for rentals of unsatisfactory quarters an amount equal to the interest on over seventy-one thousand dollars. This amount of rental might have to be doubled should certain schools be forced to seek other quarters. [See pages 7 to 17.]

(2) The courses of study offered in these schools have the confidence of the artisans of the city. The limitations of these courses are those brought about by unsatisfactory housing and inadequate equipment. [See pages 18 to 35.]

(3) Almost all fields of industrial life are represented among the students of these schools. That these schools have done worthy work, and returned many times the amount expended upon them, is attested by the life stories of their students. [See pages 36 to 44.]

(4) The time is ripe for the extension of these courses, and your Committee will have broad public support in

any efforts you may make in behalf of our artisan citizens. [See pages 45 to 53.]

(5) Boston has never hesitated to undertake special lines of educational effort for the advancement of her citizens. For instance, over a quarter of a million dollars are annually expended to maintain about two thousand boys in the magnificently equipped Public Latin, English High, and Mechanic Arts High Schools. All three schools are special plants established for specific purposes. In the face of such generous appropriations in other lines, is it fair to the wage-earners in the artisan classes of our evening drawing schools (who through either assessment, house or room rent are our heavy taxpayers) to house them so unsatisfactorily or to withhold longer the means for better equipment and more worthy maintenance? [See pages 54 to 63.]

(6) A structure erected and equipped for these evening artisan classes would find worthy use during the daytime by boys and girls who show aptitude for industrial art courses. Thus would the school period be prolonged for many pupils, and training offered which in later chosen occupations would prove of inestimable value.

[See pages 64 to 69.]

(7) Great Britain has had these same industrial art problems to solve, and her demonstration of art educational methods has been our pattern in the past. The magnificent equipments of her great cities should be our inspiration to-day. We can afford to do no less for our artisan students than has Great Britain, and like her we should provide opportunities for

executing designs and examples of industrial art in actual materials. [See pages 70 to 89.]

(8) We have proved what can be done under unsatisfactory conditions — what could we not accomplish with worthy housing and adequate equipment! The increment in value of applied art knowledge in connection with skilled labor has also been proven. We owe it to the skilled laborers in these evening drawing schools to give them better facilities, better equipment, and broader courses for training in artistic artisanship, for therein lies the ultimate salvation of New England industry. This we cannot undertake too soon. [See pages 90 to 102.]

In 1887, Mr. Charles Pratt, a philanthropic merchant of Brooklyn, founded in his home city the Pratt Institute, a school for young men and women unable to attend college or the scientific schools, and to whom higher education in practical lines had up to that time been denied. The immediate success of this institution, and its unparalleled growth in students from hundreds to thousands, quickly demonstrated the need of such schools.

There were already a sufficient number of institutions for the favored majority, turning out more lawyers, ministers, doctors, and writers than can find comfortable employment. There were as well the institutions of technology training, the captains and generals of industrial life. Recognizing that the great majority of American citizens would inherit no wealth, and that they were born with the desire to earn their own living, this institution aimed to offer a culture which consisted in the promotion of vital relations to vital things. It sought to prepare not so much for the ornaments and adjuncts of life, but for life itself. This great school and the similar institutions erected in its train stand for the

recognition that a man's work is his very life, the source of the spiritual as well as the material income which he draws. These philanthropic foundations have done more to show the educational world that the life-work and bread-winning power of an artisan can offer artistic and creative expression for his soul than any other of the educational influences of the nineteenth century.

GRAPHIC DEMONSTRATION OF BOSTON'S OCCUPATIONS.

This diagram, which was prepared from the last Census returns for the City of Boston, illustrates the dominant position and importance of our industrial workers. After these, in order of their height, follow the commercial, transportation, personal service, professional, government, and student interests.

Acknowledgment is due to Mr. Albert F. Schmitt of the East Boston Evening Drawing School for making the drawing.

Finally we would graphically record the fact that the people employed in the industrial interests of the City of Boston are far greater in number than those of the commercial, transportation, personal service, professional, government, or student classes. Boston has, however, done less for the educational advancement of her industrial workers than in almost any other line of civic effort. The artisan

may travel about the city and find investments in land and school buildings representing original expenditures of over eighteen and a half millions of dollars. His little children are taken care of in the sunniest of kindergartens, his boys or girls are welcomed to primary or grammar school buildings wherein safety, convenience, and healthful conditions have been provided for by most generous expenditures. His older children may be educated in high schools which are models of their class, and his oldest daughter may even receive her professional training and a reasonable hope of a situation at the hands of the city. But when the artisan himself seeks training in those subjects of applied art which add the greatest increment to his weekly wages he seeks in vain for the same adequacy of equipment, or anything approaching the same generous provision for his advancement.

In industry and commerce Boston has her two great opportunities to stand preëminent. Consequently our schools should offer courses which would open pathways into those fields of active labor toward which our boys and girls are heading, and in which our mature students are already located. The commercial field is happily being considered by members of the School Committee. I believe it to be the duty of this department to place on record what has been accomplished by our artisan students, how other cities and centres have aided industrial education, and how necessary it is that wider opportunities be offered to the students of our evening drawing schools for their training in artistic artisanship.

To this end I have prepared this report during an unusually busy year. It has involved research, verification, and comparison; its suggestions are based upon practical experience rather than on visionary theory; many of its illustrations and diagrams have been prepared in other years and have waited for this opportunity for record; while the notes upon foreign schools and courses are based upon a personal acquaintance with these efforts covering many seasons

of observation, verified by a summer of special study of these schools and their interests.

If adequate housing and more extended courses shall eventually result for our artisan students, this labor will not have been in vain.

In presenting this report I would gratefully acknowledge the warm-hearted support and cordial assistance which has at all times been granted me by the Chairman and members of the Committee on Drawing and by the members of the School Committee and their officers.

Respectfully submitted,

JAMES FREDERICK HOPKINS,

Director of Drawing.

NOVEMBER, 1904.

Upon receipt in print of the report of the Director of Drawing this Committee voted to accept the report and to consult with the Superintendent and the Board of Supervisors regarding the expediency of extending the courses of the Evening Drawing Schools to include broader training in industrial design and actual practice in applied arts. In informal responses to these communications the Board of Supervisors suggested that the report as a whole could readily be accepted and that definite courses of study might very properly be presented for consideration and approval.

This Committee believes that these Evening Drawing Schools which have long been so successful a feature of Boston's educational system are worthy of broader support and more extended courses of study. We feel that the artisan students in these industrial schools should be offered as generous appropriations and as worthy housing and equipment as is provided for the most favored students of our day schools and classes. We recognize we cannot afford to do less for these evening students than is done by Great Britain, France, or Germany, and in all of these countries most adequate equipments and generous appropriations are offered to the artisan students of industrial art. We know that such instruction returns many times the amount of the original outlay in increased wages and a better life for the industrial workers. We believe that the ultimate salvation of New England industry lies in training our skilled artisans to manufacture more artistic products.

Recognizing that the time is now ripe to extend the courses of these schools and to provide a worthy home for their permanent use, and knowing that broad public support awaits the School Committee in any such action, we would offer the following orders:

Ordered, That the Superintendent be requested to report a course of study for the Evening Drawing Schools which will include broader training in industrial design and actual practice in the application of design to material.

* *Ordered*, That the Board of Schoolhouse Commissioners be requested to prepare plans and estimates for the project of a building arranged and equipped for worthy training in industrial drawing, design, and applied arts, to be occupied by the Evening Drawing Schools as a permanent home.

JAMES A. McDONALD, *Chairman*,
GRAFTON D. CUSHING,
JOHN D. DRUM,
HERBERT J. KEENAN,
WILLIAM T. KEOUGH.

---

* As amended May 23, 1905.

21

T351.5 .B61
Special report of the Committee on
Gutman Library APT7153
3 2044 029 090 941

DUE